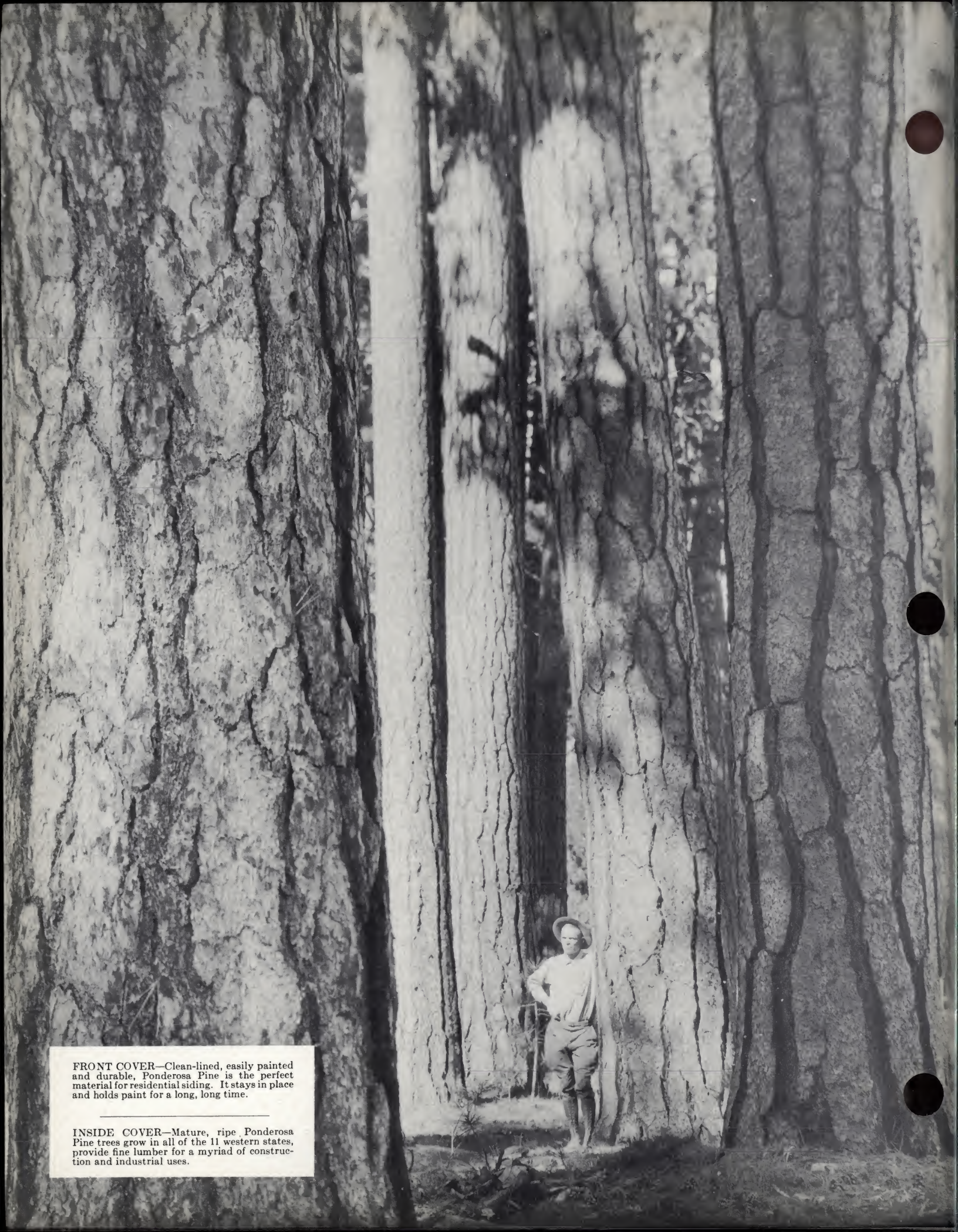


PONDEROSA PINE

The Pick o' the Pines

ITS PROPERTIES, USES AND GRADES



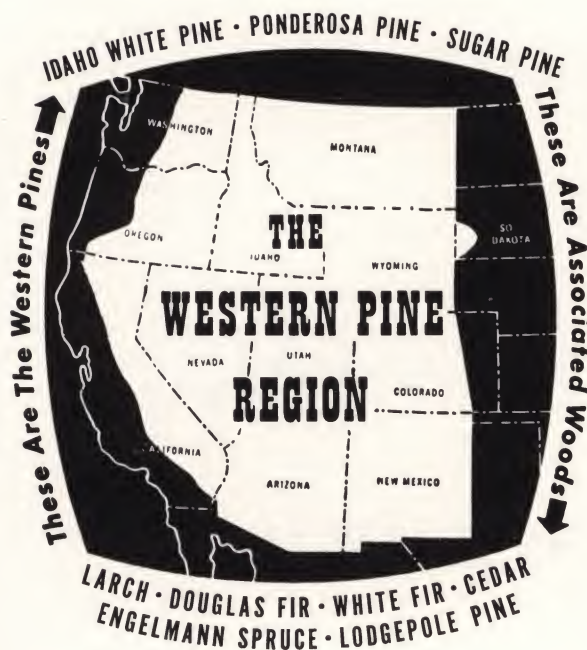


FRONT COVER—Clean-lined, easily painted and durable, Ponderosa Pine is the perfect material for residential siding. It stays in place and holds paint for a long, long time.

INSIDE COVER—Mature, ripe Ponderosa Pine trees grow in all of the 11 western states, provide fine lumber for a myriad of construction and industrial uses.

PONDEROSA PINE

The Pick o' the Pines



Foreword

Ponderosa Pine, the most popular multi-purpose softwood lumber in current use, has the greatest growth range of any commercially important lumber species in America. It is found in abundance and produced in volume in an area covering the eleven Western States and the Black Hills of South Dakota—more than 35 per cent of the total land coverage of the United States.

Ponderosa Pine lumber is a superior material for the manufacture of sash and doors, finish woodwork and boxes and is widely used for all purposes in residential and commercial building construction and general industrial uses.

Of all the wood species manufactured into lumber in the Western Pine Region, Ponderosa Pine is foremost in both supply and production volume. With standing sawtimber inventory of more than 180 billion (180,000,-

000,000) board feet, average annual output is approximately three billion (3,000,000,000) board feet, assuring a plentiful supply for the foreseeable future. And the rapid advance in modern industrial forest management methods is leading to the spreading adoption of Tree Farm and forest regeneration principles by Ponderosa Pine timber owners and sawmill operators.

This publication is designed for the dealer and consumer of wood. It lists the properties of Ponderosa Pine which have made it one of the most widely accepted building materials, grades in which it is available and the host of uses to which it is so successfully put. From the facts contained herein, the user may draw sound conclusions on the adaptability of fine Ponderosa Pine to his particular needs.

WESTERN PINE ASSOCIATION

Yeon Building



Portland 4, Oregon

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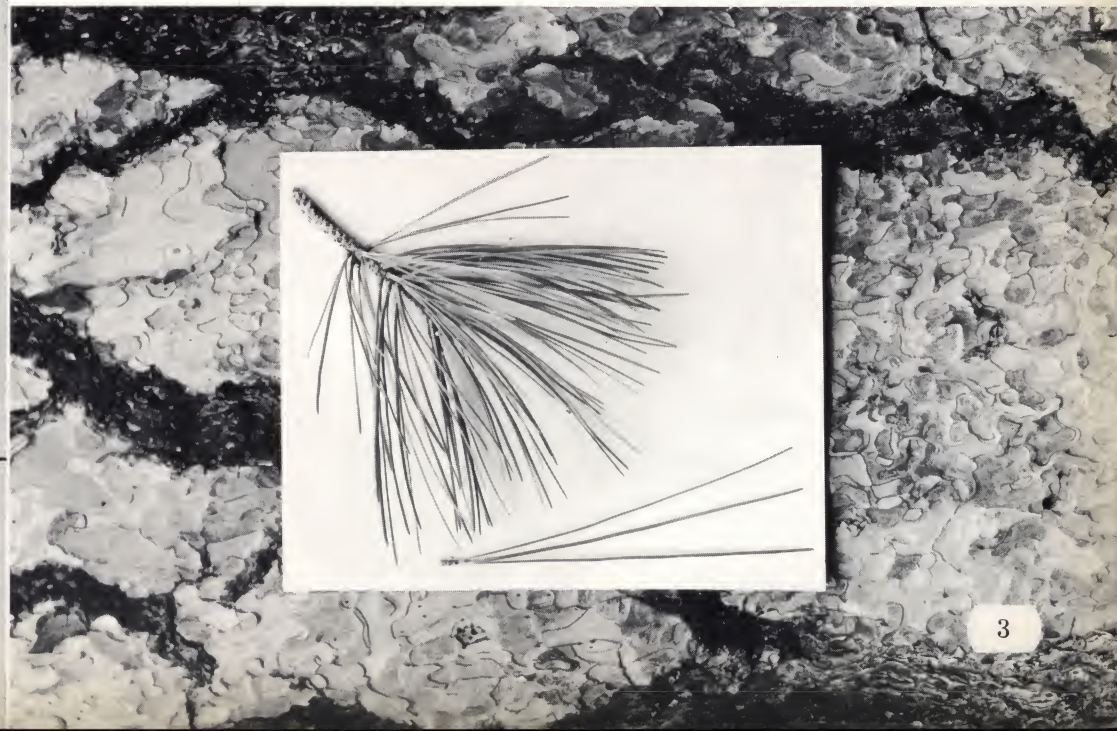
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Revised Edition — 1953
Western Pine Association
Portland 4, Oregon

LITHOGRAPHED IN U. S. A.

Properties of PONDEROSA PINE

The Pick o' the Pines





Sound forestry assures a continuous supply of Ponderosa Pine. Large trees in background furnished seed source for small growth around old stump.



Ponderosa Pine trees grow to heights of over 200 feet and diameters of more than six feet.

Botanical Classification

Ponderosa Pine (*Pinus ponderosa*) is one of the soft-textured pines—a group distinct from the southern yellow pines which are heavier, harder and pitchier and have widely different values and uses. The soft pine species of commercial importance in the United States, in addition to Ponderosa Pine, include Idaho White Pine (*Pinus monticola*), Sugar Pine (*Pinus lambertiana*) and Northern White Pine (*Pinus strobus*).

Ponderosa Pine is the only species of the group not classified botanically as a true white pine. The wood of the species, however, is classified by authorities as generally similar to that of the other soft-textured pines. The Wood Handbook of the Forest Products Laboratory describes Ponderosa Pine as “easy to work, stays in place well, and has a uniform texture, being somewhat comparable in many respects with the white pines.”

Because of its marked similarity to the species classified botanically as white pine, the lumber produced from Ponderosa Pine was for many years sold under various local trade names which included the white pine designation. Today, as a wood which can stand squarely on its own merits, Ponderosa Pine is well and favorably known throughout the United States, Canada and many foreign countries.



Strong for its comparatively light weight, Ponderosa Pine is excellent for sturdy framing.

Structure

Ponderosa Pine is a soft-textured wood with typically straight, close and uniform grain, unexcelled for smoothness and fine appearance when surfaced, and easy to work by both hand and machine tools.

Appearance

The wood of Ponderosa Pine is light in color, varying from creamy white to straw. In contrast with other commercial softwoods of darker shade, Ponderosa Pine is distinctly a "white wood."

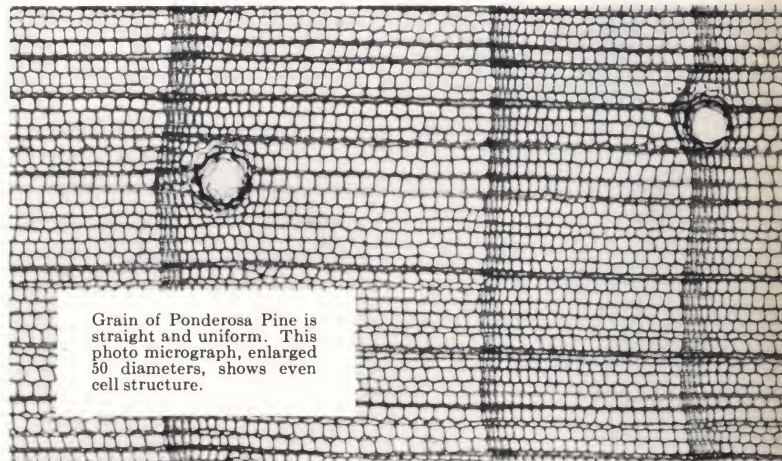
Transition from springwood to summerwood is slightly more abrupt than in the white pines but decidedly less marked than in many other softwoods. Ponderosa Pine lumber after dressing presents a delicately figured grain.

Weight

Specific gravity values for wood indicate relative density and provide a means of comparison of dry weights of various species. In the commercial softwoods, specific gravity ranges from .31 to .58.

Specific gravity of Ponderosa Pine is .40, slightly higher than the .35 average of white pines but well below the median mark for all softwoods.

At a moisture content of 12 per cent, the mean weight of Ponderosa Pine is 28 pounds per cubic foot in the 23- to 41-pound range of commercially important softwoods.



Grain of Ponderosa Pine is straight and uniform. This photo micrograph, enlarged 50 diameters, shows even cell structure.

Strength

The soft-textured pines and other woods of relatively low specific gravity, although not containing the strength of the harder, denser woods, are suitable for most residential and commercial building purposes.

For its weight, Ponderosa Pine ranks high in strength properties for all recommended uses. (See page 68 for recommended uses.) It equals the average of the white pines in bending strength, compressive strength and shock resistance. It is somewhat harder and slightly less stiff.



Ponderosa Pine takes nails readily without splitting. No special care in fastener selection is necessary and larger nails may be used in Ponderosa than in many softwoods.



Ponderosa Pine lumber shrinks and swells only slightly with moisture changes, assuring rigid, tightly joined studding.

Shrinkage

The shrinkage of Ponderosa Pine, a light wood, is about equal to the average for the soft-textured pines which, when compared to all softwoods, is very little. Volumetrically, it is as much as 30 per cent less than some of the heavier softwoods.

All woods shrink as they dry and swell as they absorb moisture. The heavier woods, as a group, shrink and swell more than the lighter species with any given change in moisture content. Wood, however, unlike metal, does not appreciably expand or contract with changes of temperature.

The low shrinkage and swelling coefficient of Ponderosa Pine makes it an outstanding wood material for the manufacture of sash and doors and all other types of woodwork as well as for use in light construction requiring close-fitting joints and high dimensional stability.

Raised grain, which develops from uneven shrinkage in flat-grained pieces of some of the heavier woods, is not found in Ponderosa Pine because of its slight shrinkage.

Ability to Stay in Place

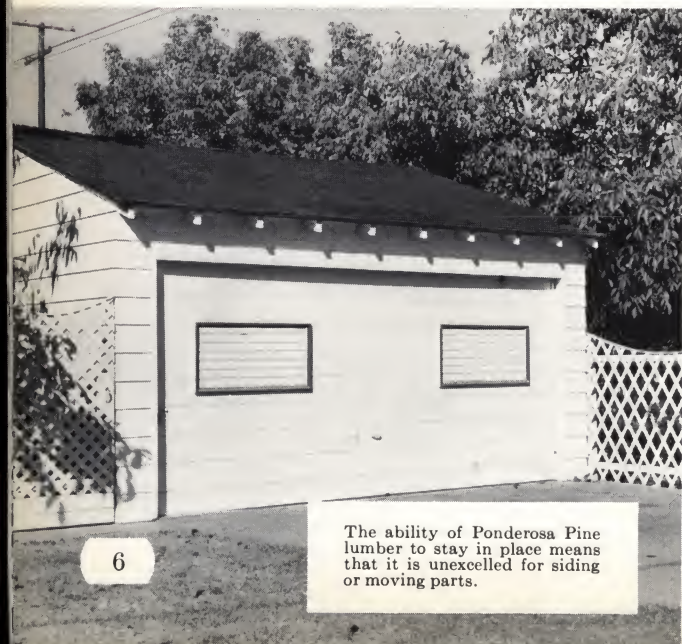
Ability to stay in place is synonymous with dimensional stability and depends upon the amount of shrinkage and swelling, either sectionally or throughout the whole board, the wood will undergo in actual service.

Because of its low shrinkage and swelling, Ponderosa Pine is classed as one of the premier woods in dimensional stability.

An additional factor is the moisture content of the wood at time of installation. Ponderosa Pine, shipped well seasoned, will hold its shape and size indefinitely with reasonable care and maintenance.

Nailing Properties

Well known for their resistance to splitting, the soft-textured pines are woodworkers' favorites for their ability to take nails without extra care in fastener selection. Ponderosa Pine, because of its low density, soft texture



The ability of Ponderosa Pine lumber to stay in place means that it is unexcelled for siding or moving parts.



A well-built house doesn't sag or develop cracks. Sheathing and framing of Ponderosa Pine assure tight-fitting joints and smooth surfaces that stay in place.



Fine cabinetwork demands Ponderosa Pine, a wood that will take and hold nails and stay in place under moving stresses.



Test of a fine finish wood is its ability to take nails near ends without splitting. Here's how Ponderosa Pine qualifies.

and uniform grain, nails more easily and has far less tendency to split than harder, denser softwoods.

In general, relative resistance to nail withdrawal is dependent upon specific gravity—the higher the wood's specific gravity, the greater the resistance. But under actual service conditions, lower withdrawal resistance in the light density softwoods is more than offset by increased split resistance, for proportionately larger nails may be used without fear of splitting to accomplish a withdrawal resistance comparable with heavier woods.

Grain texture is important to nailing. Hard, easily separated fibers cause deflection of nails. Even-textured Ponderosa Pine allows nails to be driven straight and true.

Always important is the relative dryness of lumber when nailed. Improperly seasoned lumber, shrinking after installation, allows wood fibers to pull away from fasteners. Ponderosa Pine, always dry, holds nails indefinitely.

The large annual use of Ponderosa Pine for box shoo

and crating is one of the finest testimonials to the wood's excellent nailing properties.

Workability

The excellent workability of the soft-textured pines is a byword with cabinet makers and woodworkers. Basic reasons are the wood's uniform cell structure, straight grain, medium length fibers, freedom from resinous masses and lack of slivering and splitting tendencies.

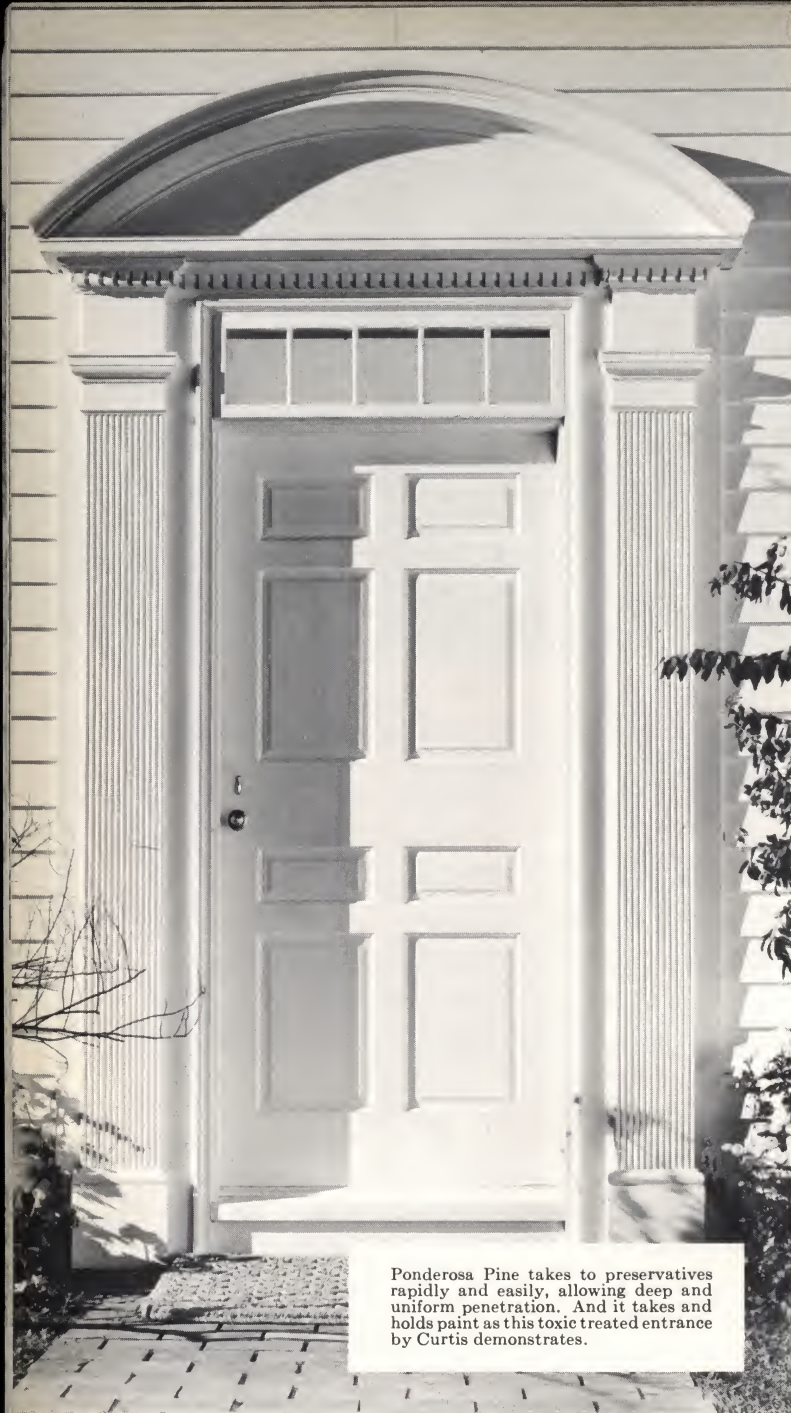
Ponderosa Pine possesses all five properties. It is widely and favorably known for its high degree of workability with either hand or machine tools and is universally respected by woodworkers throughout the country for the ease with which it is fashioned into fine mouldings and other intricate detail work. Standard milling of Ponderosa Pine produces a lustrous finish requiring only the slightest amount of sanding to remove surface inequalities.



Workability is vital to interesting architectural and decorative effects. With either hand or machine tools, Ponderosa Pine is easily turned and shaped.



Furniture making is a fine art calling for fine materials. That's why Ponderosa Pine was used here.



Ponderosa Pine takes to preservatives rapidly and easily, allowing deep and uniform penetration. And it takes and holds paint as this toxic treated entrance by Curtis demonstrates.

Ability to Take Finishes

The ability of a wood to take and hold a protective coating, an important factor in its use, rests upon the wood's natural characteristics. Soft texture, uniform cell structure and low resin content are essential.

The soft-textured pines, including Ponderosa Pine, are extremely paintable and readily lend themselves to any kind of stain, lacquer or enamel. Coverings grip securely and last for a long time. Where light finishes are used, the light color of Ponderosa Pine requires fewer covering coats.

No special paint mixtures or other than ordinary methods of application are required for good results. Paints flow smoothly and freely over its satiny surfaces.

The tremendous popularity of Ponderosa Pine for knotty paneling has produced a vast quantity of stains and methods of finish treatment to carry out any interior theme from colonial to contemporary. The wood has demonstrated an adaptability to any.

Preservatives

Thin-walled cells and even-celled structure of Ponderosa Pine allow deeper and more uniform penetration of preservatives and fire-resistant compounds than do denser woods. Uniformly treated lumber will give better service than when penetration is superficial or spotty.

All wood should be given preservative treatment when placed in contact with the soil. But for all other recommended uses, Ponderosa Pine will not deteriorate because of decay if sound principles of construction and reasonable maintenance standards are followed.

Ponderosa Pine is being satisfactorily and economically treated at many woodwork plants with toxic and water-repellent preservatives. Insofar as possible, like any other wood, it should be machined or pre-cut to



Fine finishes—stains, enamels or lacquers—are easy to apply on Ponderosa Pine paneling. And the results are beautiful.



Immaculate for years—that's the result of this happy combination of gleaming enamel and fine Ponderosa Pine paneling.

finished sizes and shapes before application of the preservative. If further re-sawing, planing or boring is done after treatment, a final brush application should be made.

Insulation

The high insulation value of wood among rigid building materials is without parallel. It has long been recognized and utilized.

Relative efficiency of wood as insulation against heat and cold varies inversely with specific gravity. The thermal conductivity of Ponderosa Pine, because of its low density, is extremely low and the insulation value correspondingly high. Insulation value is an additional reason for the huge use of Ponderosa Pine for sheathing, roof decking, subflooring, sash, doors and siding.

Gluings

On the basis of both laboratory tests and commercial experience, Ponderosa Pine is grouped with those woods which are given top rank in ease of gluing. It is admirably suited to all types of factory and shop use where glued-up construction is required.

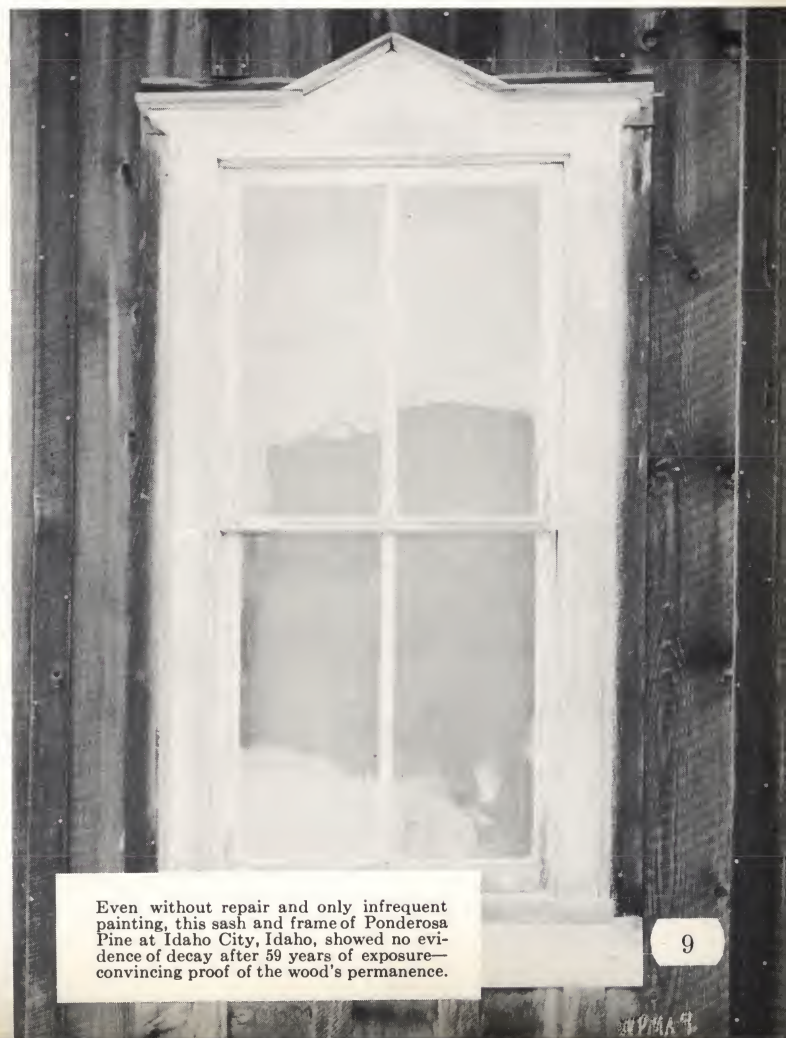
Permanence

Ponderosa Pine will outlast the service life of the structure of which it is a part, provided, of course, it is installed with adherence to proper structural design and the building is given reasonable maintenance.

Its history of durability in the half-century it has been commercially available demonstrates that it ranks with the other soft-textured pines, long noted for their staying powers.



Low in density, Ponderosa Pine is an effective insulator against summer's heat or the deep cold of winter.



Even without repair and only infrequent painting, this sash and frame of Ponderosa Pine at Idaho City, Idaho, showed no evidence of decay after 59 years of exposure—convincing proof of the wood's permanence.



Ponderosa Pine is classified in the topmost group of woods in ease of gluing, demonstrated here in Kerns furniture.



Ponderosa Pine was chosen for the sidewalls of these Economy grain bins because of its workability, ease of handling and nailing and its accurate milling—all totaling economy for the user.

Adaptability

Ponderosa Pine is truly an all-purpose wood. For industrial purposes, residential and commercial building, for interiors and exteriors, architectural woodwork, furniture and a host of specialty uses, it is widely and serviceably used.

Adaptable as it is to a host of divergent uses, it has a high recovery factor in woodworking, construction and industrial fields. After processing in a woodworking plant, there is little left of Ponderosa Pine but the knots and in many cases knotty Ponderosa Pine is utilized in knotty furniture and specialty products.

Economy

Whether Ponderosa Pine is used in general construction, in remanufacture or in industrial plants, it can be worked into final form with economy and often at marked saving in both labor and material. Its versatility for any stock or special woodwork product or construction or industrial use results in complete utilization.

Its lightness lessens shipping expenses and makes possible easy handling of the material on the job. Its soft, easy cutting texture speeds the carpenter's task in his final fitting work at the site and, to the large scale woodworker, Ponderosa Pine means more accurate work with less dulling of equipment and loss of material through imperfect manufacture.

Other Characteristics

Ponderosa Pine has the characteristic pleasant pine odor but is only slightly resinous and comparatively free from pitch and resin pockets. The typical knot is red and sound.



From the roughest of form lumber to striking woodwork, Ponderosa Pine is adaptable to nearly every lumber use. Here it's hand carved into a solid plank door.



Precision milling is standard procedure with Ponderosa Pine sawmills. Each piece is checked for accuracy of size and smoothness of surface.

THE MANUFACTURE OF PONDEROSA PINE

The inherent high quality of the soft-textured pines has always justified a rigid milling standard by the manufacturers. As a result, soft pine lumber for many years has occupied a preferred position in the market. Thorough seasoning, splendid millwork and accurate and uniform grading are its hallmarks.

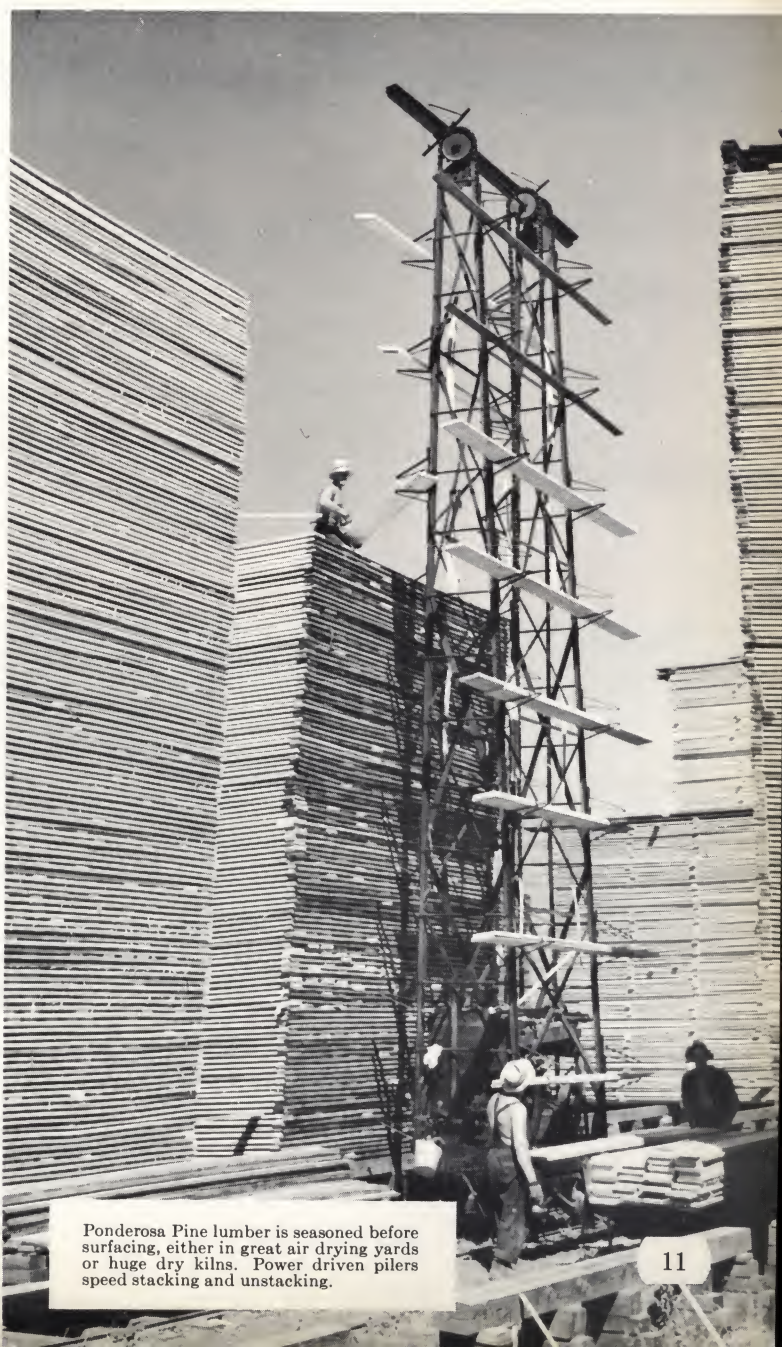
Ponderosa Pine, upholding the high tradition of the soft pines extending back to early colonial times, has in its comparatively short commercial life carried on and heightened the fine reputation of soft pine lumber through constantly improved manufacturing and shipping methods.

Seasoning

Ponderosa Pine lumber is seasoned *before* surfacing, *before* it is shipped to customers throughout the United States and abroad. The great kiln drying and air drying facilities of Western Pine mills are maintained to provide customer satisfaction with Ponderosa Pine, a naturally fine wood.

The mills, through their regional organization—the Western Pine Association—constantly seek better and faster methods of seasoning lumber. The Association's laboratory conducts continuing experiments on drying methods and the improvements and developments therefrom are incorporated into mill practices as they are perfected.

Because of its slight shrinkage and evenly-formed cell structure, Ponderosa Pine seasons without developing defects in the process.



Ponderosa Pine lumber is seasoned before surfacing, either in great air drying yards or huge dry kilns. Power driven pilers speed stacking and unstacking.



Vast dry kiln facilities of Ponderosa Pine sawmills assure well seasoned stock for the buyer.

Milling

The naturally soft texture of Ponderosa Pine produces unexcelled millwork and normal dressing to a smooth, satiny surface.

Ponderosa Pine is worked to standard sizes and patterns *after* seasoning, *after* usual shrinkage in drying has occurred, to prevent dimensional change after shipping or installation.

At member mills of the Western Pine Association, dimensions, surfacing and general appearance of all milled material are checked by Association inspectors during monthly grade inspections at the plant.



Careful inspection of Ponderosa Pine is made at frequent intervals throughout the manufacturing process.

Shipments of Ponderosa Pine, a product of superior manufacture, are uniform in grade, size and general appearance.

Grading

Please turn to Grading section on Page 23.

Identified Lumber




This mark is the seal of the Western Pine Association. The distinctive and well known Ponderosa

Pine species mark is . Both are registered in the

U. S. Patent Office. These marks may be imprinted on Ponderosa Pine to permit easy identification of lumber manufactured under Association inspection and up to its high standards of seasoning, milling and grading. Uniformity of products from widely separated mills is maintained through constant supervision by the Association's Bureau of Grades.

Marking of lumber by grade is done upon request to any of the mills manufacturing Ponderosa Pine. Member mills of the Association can also forward a "Shipper's Manifest of Car Contents" in the car to identify by species, grades and sizes the amounts and exact description of pieces.



Building and Industrial Uses of **PONDEROSA PINE**

The Pick o' the Pines

Intelligent selection of a given material for a specific purpose rests not upon its first-glance sales appeal, its immediate cost or its momentary availability but upon its actual long-run utility, economy and supply.

A basic understanding of the physical and mechanical properties of the material, a knowledge of the job to be accomplished and a familiarity with the history of the material's performance under actual use conditions are essential.

Discussion on preceding pages has listed the properties of Ponderosa Pine and the care put to its manufacture into lumber. In the following pages the major uses of Ponderosa Pine and detailed material requirements for each use are outlined together with pictorial demonstrations of actual installations, illustrating the exceptional all-around utility of Ponderosa Pine for a multitude of building and industrial uses.





Handsome Ponderosa Pine siding, dimensionally stable and accurately sized, adds charm and dignity to Cape Cod, America's most popular home style.

Siding

Siding serves two purposes: it furnishes protection against weather and adds appearance to the structure. Requirements of good siding material include high dimensional stability, freedom from splitting tendencies, good nailing properties, ability to take and hold paint, ease of working, high insulation value, and absence of excessive pitch, gum or objectionable coloring matter. And it must be adaptable to a broad range of architectural styles.

Ponderosa Pine meets each qualification fully. Its universal popularity for siding is the finest testimonial to its inherent quality and utility.



The sharp, clean lines of modern stylings are beautifully expressed with precisely manufactured Ponderosa Pine siding.

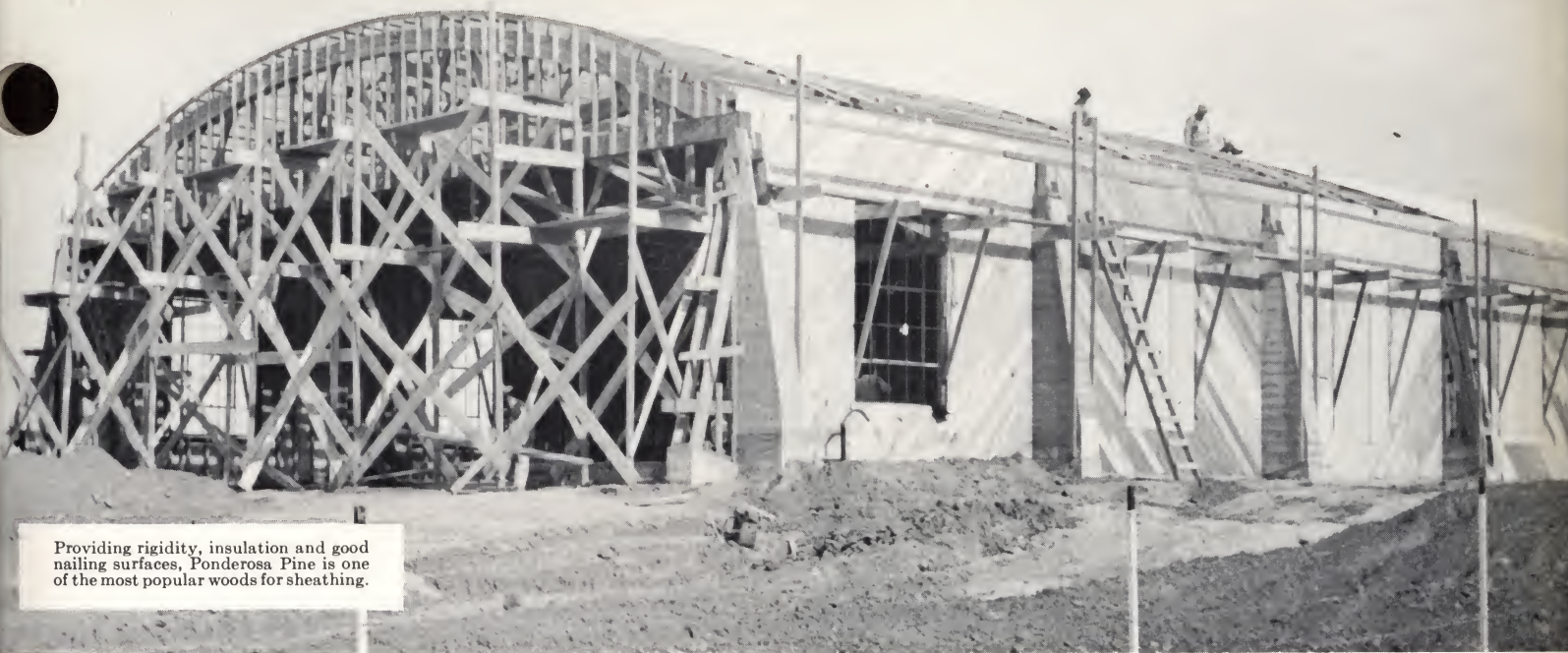
Economy Siding

Once limited to manufacture from clear lumber, siding—through the medium of an effective knot sealer developed by the Western Pine Association's Research Laboratory—is now produced in large quantities from knotty or common grade lumber and known as Economy Siding.

The new sealer, termed WP-578 and manufactured by more than 70 paint and varnish manufacturers throughout the United States, completely halts the bleeding of natural Ponderosa Pine resins for the normal span of time between paintings, preventing paint failures due to resin leaching. By laboratory tests and commercial experience, WP-578 has been proven the outstanding sealer on the market. It is available at retail lumber dealers and paint stores everywhere.



Board and batten siding, finished naturally or treated with WP-578 Knot Sealer and then painted, is rapidly increasing in popularity. It's a perfect use for Ponderosa Pine.



Providing rigidity, insulation and good nailing surfaces, Ponderosa Pine is one of the most popular woods for sheathing.

Economy Siding run from common grades is available in a wide variety of standard patterns and sizes at most mills producing Ponderosa Pine lumber. With WP-578 applied over knots before painting, Economy Siding stands any test of durability or appearance.

Sheathing

Top requirements for good sheathing are high insulation value, strength to bolster the framing and good nailability without splitting or permitting nail withdrawal. Sheathing must also have dimensional stability, ready workability, firm knots and smooth, accurate milling—standard characteristics of any good lumber.

Ponderosa Pine sheathing furnishes strength with light weight, excellent nailing properties and superior insulation qualities in addition to the general characteristics of fine lumber. It is a standard, high quality sheathing material.

Subflooring

Subflooring, like sheathing, gives insulation, stiffness and smooth, uniform nailing surfaces to the building. Lumber must be smoothly manufactured, dimensionally stable, take nails easily without splitting, possess ample bending strength for its weight and be of low density. To hold down construction costs, it must be easily workable on the job site.

Characteristics which apply to Ponderosa Pine for sheathing are equally valid for subflooring. They are the reasons why Ponderosa Pine has a performance record of proven reliability.

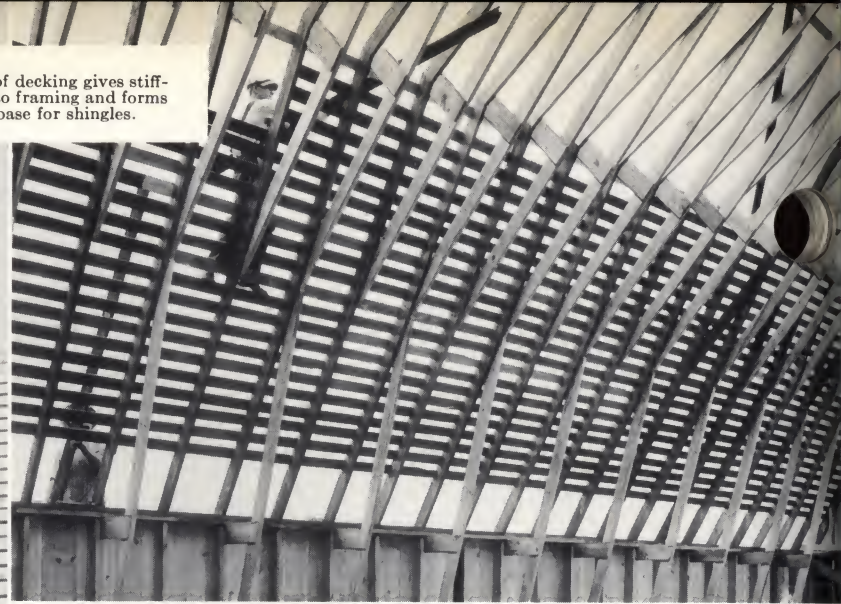


Ponderosa Pine sheathing nails without splitting, stays in place and furnishes smooth surfaces for application of siding.



Easily fashioned on the job site and possessing ample bending strength, Ponderosa Pine is without peer for subflooring.

Ponderosa Pine roof decking gives stiffness and strength to framing and forms a superior nailing base for shingles.



Roof Decking

Like sheathing and subflooring, roof decking gives strength and stiffness to the frame, supplies insulation and forms a flat nailing surface for a covering material.

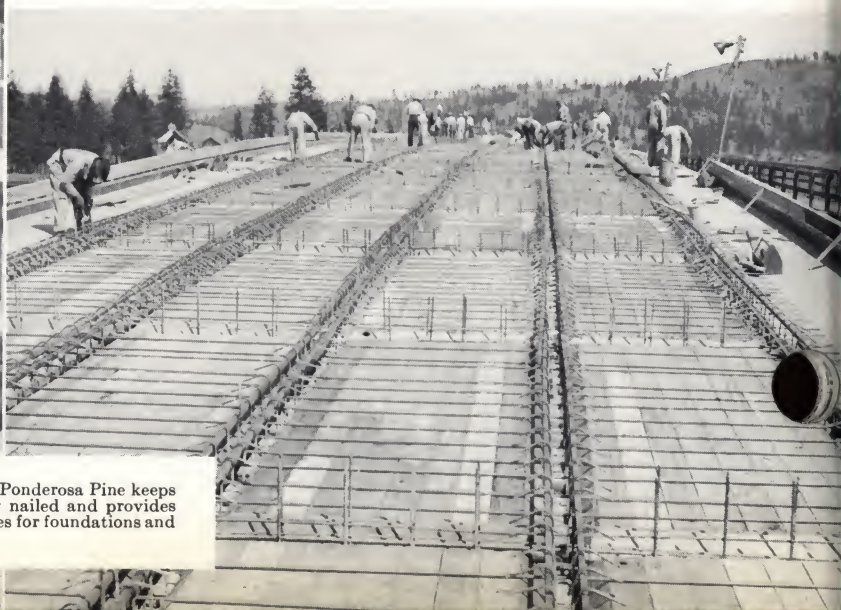
And as with subflooring and sheathing, the inherent characteristics of Ponderosa Pine constitute the basic properties of good roof decking.

Concrete Forms

Concrete forms are a dual purpose material—first used to mould concrete, and then applied as subflooring, sheathing or roof decking.

Requirements for either use are similar. The lumber must not be subject to pronounced changes in shape or size, must be smooth to provide an even concrete face and consistent level surfaces for application of later coverings and must possess firm nailing qualities. It should be light in weight for economical handling.

Low in shrinkage and swelling coefficients, free from splitting tendencies and light in weight, Ponderosa Pine is a universally accepted wood for concrete forms.



For concrete forms, Ponderosa Pine keeps its shape, is readily nailed and provides smooth, even surfaces for foundations and finish work.



Studding and rafters of Ponderosa Pine are strong and light in weight. Always seasoned before surfacing, they're straight and uniform and stay in place after installation.

Light Framing

Light framing—composed of floor joists, studding and rafters—employed in the usual residence and commercial building requires strength for minimum weight, good dimensional stability, ready workability, smooth and accurate manufacture and top nailing properties.

Ponderosa Pine, though limited in use for general framing when compared to other lower cost structural woods, is ideally suited for many framing purposes. For studding, bridging, fire stops and other miscellaneous framing parts, it is unreservedly recommended because of its low shrinkage and high stability.

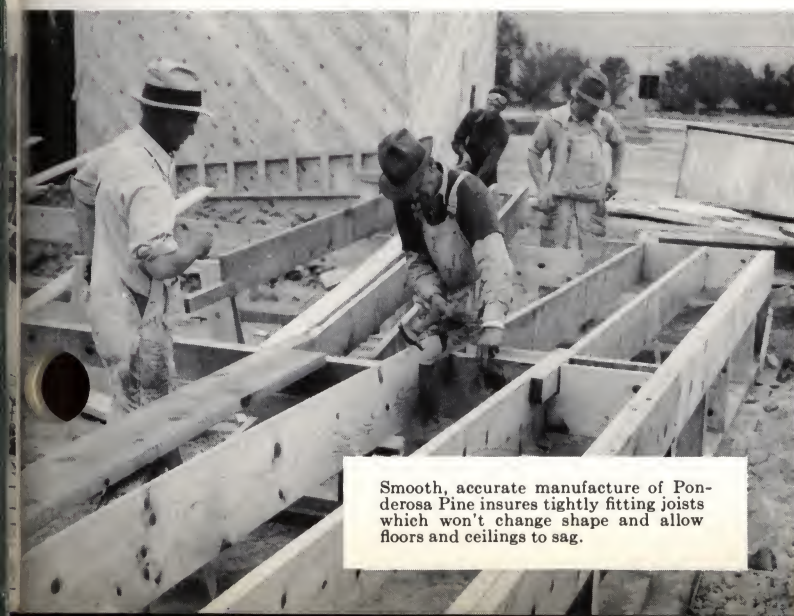
Lath

Ease of nailing, split resistance, ready workability, precise manufacture, low shrinkage, absence of undue pitch and light weight and color are important characteristics of good lath.

Ponderosa Pine lath, backed by years of satisfactory service, is recommended without qualification by its manufacturers and users.



Stout Ponderosa Pine makes fine footings and joists, dimensionally stable and durable over the years.



Smooth, accurate manufacture of Ponderosa Pine insures tightly fitting joists which won't change shape and allow floors and ceilings to sag.



Resistance to splitting and light weight and color make Ponderosa Pine lath the best available.



Modern interiors require clean-lined, smooth paneling that's adaptable to bright color treatments. Ponderosa Pine fills the bill.



Knotty Pine paneling is an American tradition and Ponderosa Pine is the favorite of all for handsome, charming interiors.



For perfect paneling, Ponderosa Pine—easily nailed without splitting, dimensionally stable and readily enameled—can't be surpassed.

Paneling

Knotty Pine paneling has become a virtual tradition in the American home. First used by early New England colonists and adopted intact in its colonial setting by succeeding generations, it has also been successfully adapted to changing architectural styles spanning three centuries.

And it has kept pace with the recent tremendous popularity of interior coloring by lending itself to color tints without losing its knotty identity.

Clear grades of pine, too, have been used since colonial days for fine paneling. With the contemporary trend toward clean lines unrelieved by ornamentation, clear paneling has been re-discovered by progressive architects and decorators and used in enormous quantities.

Economical to apply, easy to maintain and always attractive, Ponderosa Pine paneling—knotty or clear—is available in a wide scope of patterns and is run to special order.

Technically, it is readily nailable without splitting, easy to work, dimensionally stable and exceptionally adaptable to any paint or stain treatment.

An overwhelming favorite for decades, Ponderosa Pine is the finest material for paneling.

Architectural Woodwork (Stock)

The historic use of pine for fine paneling extends into the woodwork fields where Ponderosa Pine has been a dominating factor since the beginning of its commercial



Ponderosa Pine window frames and sash were specified to match the striking appearance of the National Naval Medical Center at Bethesda, Md. (Official U. S. Navy photograph.)

manufacture. Combining beauty, convenience, durability and economy, it is the most widely used softwood for stock and special architectural woodwork.

Embracing the fabrication of standard size window and door frames, doors, sash of all types, shutters, screens, porch columns, stairwork, cabinet units and other interior and exterior products, stock architectural woodwork in its finished form requires material combining attractive appearance with ruggedness.

Manufacturing prerequisites include easy workability, dimensional stability, good nailability, high glueability, light weight and freedom from excessive pitch, gums or coloring matter.

In many woodwork products such as doors and door frames and windows and window frames, durability under movement is essential. That, in turn, means an ability to withstand shocks and jars without splintering, splitting or scuffing together with dimensional stability so that moving parts will fit snugly without binding under all atmospheric conditions.

The material must be architecturally adaptable to fit a vast variety of interior and exterior styles and lend itself to a multitude of different finishing treatments.

Ponderosa Pine, one of the most versatile softwoods known, is the choice of most of the nation's fine wood-working plants for architectural woodwork of any description, both standard and special. The adoption of the new modular standard by many of the plants means Ponderosa Pine woodwork is available at greater economies.



Ponderosa Pine combines beauty, convenience, durability and economy to produce fine architectural woodwork such as this entrance by Curtis.



Window frames and sash by Curtis provide beauty and durability—and demonstrate the adaptability of Ponderosa Pine to fine architectural woodwork.



For interior woodwork, too, Ponderosa Pine is economical and lovely to look at. (Photo from Curtis Companies, Inc.)

Architectural Woodwork (Special)

Special architectural woodwork includes all woodwork of other than standard sizes and designs. Also known as cabinetwork, it includes the manufacture of "permanent furniture" or built-ins such as book cases, dressing tables, linen closets, cupboards, china closets, breakfast nooks, ironing boards, sugar and flour bins, special doors and windows and frames and a host of other special and semi-special exterior and interior products.

Requirements of special architectural woodwork material are identical to those for stock woodwork with emphasis on workability by hand and adaptability to design. The soft texture and even grain of Ponderosa Pine allows the precise hand joinery used in special woodworking and the machining and turning necessary in following intricate design.

In company with its universal acceptance in the stock woodworking fields, Ponderosa Pine is an established standard material for special woodwork throughout the country.



Special architectural woodwork demands a wood easily worked and shaped into attractive designs. That's why Ponderosa Pine is so often selected. (Sunset photo.)



Durability under movement is essential in cabinetwork. Ponderosa Pine is the choice for its ability to stay in place and withstand shocks and jars without splintering.



Kids can give any material its supreme test of abuse. Ruggedness AND durable beauty makes Ponderosa Pine the perfect boy's room finish.

Furniture

Traditional Knotty Pine furniture has been a standard product for centuries and unpainted knotty and clear pine furniture a staple department and furniture store item for decades.

Inherently adaptable to modern design and color treatment, Ponderosa Pine has recently been fabricated into fine finished furniture with the clean lines and variety of tones of present-day interior stylings.

Easy to work, readily fastened and dimensionally stable, Ponderosa Pine is one of the finest softwoods obtainable for all types of furniture. For the commercial manufacturer, its durability, high recovery factor and easy workability make it an economical material to use. For the consumer, finished pine furniture means appearance with economy. Unpainted furniture, more economical still, requires no special skill to finish.

For the entire furniture line—from lawn chairs and tables to highly polished living room pieces—Ponderosa Pine is a superior softwood material.



For fine furniture in modern light-toned dress or in traditional styles, Ponderosa Pine is equally adaptable. At left, tropical modern dresser by Belcher; right, early American credenza by Heinley.



Wood novelties and specialty cuttings need Ponderosa Pine—highly resistant to slivering and easily worked, nailed and painted. Movable wood shutters of Ponderosa Pine by Paul Heinley.

Wood Novelties and Specialty Cuttings

Toys and specialty cuttings, including embossed blocks, animals, wagons, boats, fence pickets, window shade slats and rollers, drawing boards, pastry boards, drain boards, organ pipes and many, many other industrial articles, are made of one piece or glued-up cuttings of clear lumber.

In the manufacture, use of a soft-textured, uniformly grained wood which can be cut with little loss and worked with a minimum of waste is essential. Thin and small-sized, many of the pieces must be glued or nailed without splitting or slivering. Light weight, low resin content and paintability are also important.

Ponderosa Pine again is one of the most widely used species of lumber in the specialty cutting industry. Famed as the best of the softwoods available in large volume today, it contains all of the historically fine properties of pine lumber.


Boxes and Crates

Good shipping container characteristics are sturdiness coupled with light weight and availability in volume at relatively low cost. Ponderosa Pine, without peer among wood container materials, is manufactured in huge volume each year into crates and box shooks. It is strong for its light weight, easily nailable by hand or machine, highly workable and dimensionally stable.



Light in weight, sturdy, easily and securely nailed, Ponderosa Pine is available in volume at relatively low cost for box shooks and crates.





Grading of PONDEROSA PINE

The Pick o' the Pines

Ponderosa Pine is graded under the rules of the Western Pine Association, for nearly a half century the recognized authority on the grading of the region's woods. The Association's Bureau of Grades is composed of highly trained inspectors who check the work of plant graders each month, assuring the users of Ponderosa Pine consistent standards from the mills and affording a basis of value for each grade. Services of the Bureau of Grades are also available for reinspection when requested by either shipper or purchaser.

For customers who prefer grade-marked lumber, the mills can furnish properly identified Ponderosa Pine, which, in addition to the Association grade and trade marks, carries the official species mark,

thus: 

The product of the Ponderosa Pine log is segregated into a number of select, common, dimension and factory grades on the basis of similar properties such as appearance, strength and available cuttings. This provides a measure of value for the range of the product and a means of specifying suitable material for a specific use. Although



no one grade is designed for a single use, the individual grade classifications are adapted to definite purposes.

All softwood grading rules, as published by the several regional lumber associations, are based on the broad general provisions of the American Lumber Standards. However, there is considerable variation in the actual utility and value of the same designated grade in different species, due primarily to differences in inherent characteristics.

In general, only the highest and lowest grades in all softwood species may be said to be comparable on a use basis. Intermediate grades often vary substantially because of the different number of grades made and because of varying utility.

Ponderosa Pine is classified into five common grades, three select grades and dimension and shop grades.

Select Grades

Select grades are the top quality pieces from the log and are either clear or characterized by small imperfections such as pin knots, small pitch streaks or pockets, minor season checks or other blemishes which do not prevent utilization of the stock as a finish material.

Ponderosa Pine Selects are divided into three grades. Appearance and nature of each imperfection determine the category for each individual piece.

Selects are regularly available in 4/4 (1"), 5/4 (1 1/4"), 6/4 (1 1/2"), 7/4 (1 3/4") and 8/4 (2") thicknesses and, on special order, in thicker stock. The 4/4 x 4" to 12" is usually shipped in specified widths and lengths and the wider stock as 13" and wider, although the latter lumber may also be ordered 14", 16" and 18" and wider.

If preferred, Selects may be shipped in mixed widths and lengths, and in such cases will be largely 4" and wider 8' to 16' long with a small proportion shorter or longer.

Usually 5/4, 6/4, 7/4 and 8/4 are shipped in mixed widths and lengths with a relatively short proportion of short lengths and narrow widths, but are also furnished in specified widths and lengths when so ordered.

Available rough, surfaced two sides and surfaced four sides, it may also be ordered resawn, ripped to any size or worked to any pattern.

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Many other species have three or four common grades. Thus, for actual utility, grades of the same designation in different species may not be comparable. This is an important factor when specifications are written since different grades must be specified if comparable utility and value are to be obtained.

Concise, informally written descriptions of Ponderosa Pine are presented in the following pages, together with actual photographs of typical pieces—reproduced as clearly as photographic and printing processes allow—and a general non-technical explanation of each example. The illustration of each grade serves only to indicate the typical appearance; no attempt is made to show every type which might appear in any one grade.

Copies of the official grading rules are available from the Western Pine Assn., Yeon Bldg., Portland 4, Ore.

B & Better Select (1 & 2 Clear) Ponderosa Pine

B & Better is the highest recognized grade of Ponderosa Pine—a practically perfect grade. Only an experienced grader is able to detect minor defects that are found in occasional pieces which run to the low end of the grade and may contain one or two small pin knots, small amount of very light localized pitch or tiny season checks.

Although graded from the better side, even the backs of pieces in B & Btr are of extremely high quality. To all practical purposes, the grade is clear.

B & Btr Ponderosa Pine is used for finishing work of the very highest order, including interior trim, siding, paneling and cabinet work. It is also used for special industrial purposes where practically clear lumber in fairly large pieces is desired.

Examples of B&Btr Select (1&2 Clear) Ponderosa Pine

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|------------------|---|
| No. 1. 1x8"-10' | Entirely clear. |
| No. 2. 1x8"-10' | One small dry pitch pocket, otherwise perfect. |
| No. 3. 1x10"-10' | One spot of light torn grain in center of piece about 2" in diameter. |
| No. 4. 1x10"-10' | The face of this piece is perfect. The back has 3/8" wane for 10 inches. |
| No. 5. 1x10"-10' | Has three threadlike streaks of light pitch, combined length 7", otherwise perfect. |
| No. 6. 1x12"-10' | Face entirely clear. |
| No. 7. 1x12"-10' | Very light trace of pitch at one end for 5 inches. |
| No. 8. 1x12"-10' | Has one dry pitch pocket 3/8" long; otherwise clear. |
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B & Better Select (1 & 2 Clear) — Ponderosa Pine

C Select Ponderosa Pine

C Select is the second grade of Ponderosa Pine finish lumber and is designed to provide a top grade paint finish wood. Many pieces have a B & Btr face with backs of a slightly lower quality than are permitted in the higher grade. Other pieces have a clear appearance but contain small spots of slightly torn grain, fine checks or possibly light pitch.

Scattered, small tight knots, or medium blue or brown stain covering not more than one-third of the face area are allowed but not in amounts sufficient to destroy the high appearance.

C Select is suitable for the very highest uses where entirely clear lumber is not required. It is a highly serviceable grade for better quality interior finish, including casing, base, built-in fixtures, partition, wainscoting, cornices and exterior finish where the small blemishes can easily be covered with paint or enamel.

Examples of C Select Ponderosa Pine

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|------------------|---|
| No. 1. 1x8"-10' | Face —Light traces of pitch for 1' at one end and one 2" end check at same end.
Back —Pitch slightly more pronounced, also one $\frac{1}{2}$ " black knot and one 1" sloughed knot on edge. |
| No. 2. 1x8"-10' | Face —Three small dry pitch pockets, otherwise perfect.
Back —One $\frac{3}{4}$ " black knot. One $\frac{1}{2}$ " hole in center where blind knot has sloughed out. |
| No. 3. 1x10"-10' | Face —One $\frac{1}{2}$ " tight black knot at one end, and near center is a medium pitch spot $\frac{1}{4}$ "x1", also one small pitch pocket.
Back —Clear with the exception of one dog mark on edge near one end. |
| No. 4. 1x10"-10' | Face —Four light pitch streaks $\frac{1}{8}$ " wide, combined length 3', also two small pin knots.
Back —Considerable light pitch scattered over full width of piece for 3', also one $\frac{5}{8}$ " knot and three smaller knots all black. |
| No. 5. 1x10"-10' | Face —Within 3' of one end are two bark pockets $\frac{1}{4}$ "x1" and on edge 4' from other end are 2 small black pin knots.
Back —One 1" black knot at one end, and one $1\frac{1}{4}$ " black knot on edge near center, also two spots of torn grain. |
| No. 6. 1x12"-10' | Face —One $\frac{1}{4}$ "x1 $\frac{1}{4}$ " dry pitch pocket scab, and at one end is a small amount of torn grain.
Back —Two pitch pockets 1" in size, and 1' of medium brown stain across width of piece at one end. |
| No. 7. 1x12"-10' | Face —One $\frac{1}{2}$ " knot not firmly set and two smaller pin knots.
Back —Has six knots $\frac{5}{8}$ " and smaller in size. Three of the knots have small streaks of pitch extending out for 2 inches. |
| No. 8. 1x12"-10' | Face —One dry pitch pocket $\frac{1}{16}$ "x3" and two streaks of light pitch 2" long.
Back —One streak of heavy pitch $\frac{3}{8}$ " wide and 7" long and one streak of medium pitch 1" wide and 12" long. |



Grades and Uses of PONDEROSA PINE

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C Select — Ponderosa Pine

D Select Ponderosa Pine

D Select is the lowest standard grade of finish lumber. Fairly smooth in appearance, it is a good practical grade where something better than a common board is required. Belonging between the higher finish grades and Commons and reflecting somewhat the nature of both, it retains its Select appearance as distinguished from Common.

D Select includes pieces showing a finish appearance on one side only, the back of the board at times containing knots, pitch, wane or a combination thereof. In such cases, the face is correspondingly high. A type

often used is a high line piece requiring a cut to eliminate a defect too serious to go into finish work.

D Select is used for lower quality interior trim and for general finish work in moderate or low cost houses. It can be used economically for purposes requiring short length clear lumber or lumber of fairly good quality in window casing, cornices, window and door frames, kitchen and pantry cupboards, shelving, moulding, etc. It is an especially useful grade for the small planing mill and works up into various articles of woodwork with little waste.

Examples of D Select Ponderosa Pine

- No. 1. 1x8"-10' **Face**—One dry pitch pocket $\frac{3}{8}$ "x1 $\frac{1}{4}$ " near center, one pitch pocket $\frac{1}{4}$ "x3" at one end and at same end one very small pitch pocket.
Back—One dry pitch pocket $\frac{1}{4}$ "x4" at one end and four feet of heavy brown stain 5" wide.
- No. 2. 1x8"-10' **Face**—One $\frac{5}{8}$ " black knot not firmly set, one pin knot near end, small spot of heavy crossing stain near same end and 3" of medium brown stain on one edge full length.
Back—One $\frac{3}{4}$ " black knot and seven smaller black knots, also one $\frac{5}{8}$ " sloughed knot on edge.
- No. 3. 1x10"-10' **Face**—One $\frac{5}{8}$ " black knot, not firmly set and five $\frac{1}{2}$ " black pin knots.
Back—Two $\frac{3}{4}$ " black knots and four black knots $\frac{5}{8}$ " and smaller.
- No. 4. 1x10"-10' **Face**—One 1" loose black knot. (This is a typical cutting D.)
Back—The loose knot is same size, in addition has one pitch pocket $\frac{1}{8}$ "x1" and a 3" skip in dressing.
- No. 5. 1x10"-10' **Face**—Two small pin knots, one dry pitch pocket $\frac{1}{16}$ "x1 $\frac{1}{4}$ ", two very small streaks of medium pitch and one firmly set black knot $\frac{3}{4}$ " in diameter.
Back—Five black knots $\frac{1}{4}$ " to $\frac{3}{4}$ " in size, two streaks of medium pitch $\frac{1}{2}$ " wide and 6" long, also one $\frac{3}{4}$ " knot sloughed out on edge.
- No. 6. 1x12"-10' **Face**—One 1" tight black knot, three small dry pitch pockets, one 1 $\frac{1}{4}$ " spot of medium pitch and a spot of light torn grain 1" in size.
Back—One pitch pocket $\frac{1}{4}$ "x3" and another pitch pocket $\frac{1}{4}$ "x2", also a smooth skip in dressing across width of piece for 4" at one end.
- No. 7. 1x12"-10' **Face**—Streak of medium pitch $\frac{1}{2}$ " wide, 3' long, also four small dry pitch pockets.
Back—Two medium pitch pockets and 1" of wane for 1'.
- No. 8. 1x12"-10' **Face**—Two pin knots, two short streaks of medium pitch and a 4' streak of heavy brown stain $\frac{1}{2}$ " wide.
Back—Same amount of stain and five knots $\frac{5}{8}$ " and smaller.



Grades and Uses of PONDEROSA PINE

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D Select — Ponderosa Pine

Common Grades

Common grades come from that part of the log where the type of knots permit use of each piece as a whole. Knots sizes vary, depending on width; wider pieces contain more numerous and larger knots.

In combination with knots are splits, shake, pitch pockets and wane or blemishes which may develop through manufacturing. Size and quality of the knots in combination with other characteristics determine the grade in which each piece is placed, consideration being given to width, length and thickness involved.

Common grades are generally shipped in 4/4 (1") thickness in specified widths and lengths from 4" to 12" wide and 8' to 16' long. It is available from some mills in 1" x 13" and wider and in 5/4 (1 1/4"), 6/4 (1 1/2"), 7/4 (1 3/4") and 8/4 (2") thicknesses. It may be ordered ripped, resawn or run to pattern. A nominal size of 1 1/16" is also available.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Number 1 Common Ponderosa Pine

Number 1 is the highest of five grades into which Ponderosa Pine Common is classified and contains pieces of the small knot variety. Knots are always sound, red or intergrown, smooth and are limited in size to slightly more than 2" in diameter, depending upon the size of the piece. As a rule, the knots average very much smaller and are well distributed along the board.

Only pieces that show smooth dressing around knots are allowed in No. 1 Common. Very small pitch pockets, season checks or equivalent small blemishes are sometimes found in pieces that contain smaller or fewer knots. Light stain extending over the face is permitted in otherwise high line pieces. Knots in No. 1 Common are usually round or oval in shape and seldom occur on the edges of the board.

No. 1 Common Ponderosa Pine is highly recommended for any purposes where sound and firmly set knots can be used and exacting service is demanded. For moderately priced homes, it makes a serviceable lumber for both interior and exterior work—for stock window and door frames, cornices, jambs, siding and cupboard shelving.

No. 1 is the best grade of lumber available for Knotty Pine paneling, especially for installations where small, round, tight knots are preferred. Because of the knot uniformity, practically no sorting is necessary to obtain paneling stock.

Examples of No. 1 Common Ponderosa Pine

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|------------------|--|
| No. 1. 1x8"-10' | Three 1" red knots, one 1 1/2" red knot with small amount of torn grain around it, and one small dry pitch pocket. |
| No. 2. 1x8"-10' | Five red knots from 1" to 1 1/2" in size. |
| No. 3. 1x10"-10' | Nine red knots from 1/2" to 1 1/4" in size, also two small tight black knots. |
| No. 4. 1x10"-10' | Eight small red knots well scattered, and one smooth 1 1/2" red knot on one edge. |
| No. 5. 1x10"-10' | Six small red knots and three red knots 1 1/2" in size, also light heart pith at one end for 6 inches. |
| No. 6. 1x12"-10' | Ten red knots from 3/4" to 1 1/2" in size. One of the knots has a small spot of light torn grain around it. |
| No. 7. 1x12"-10' | Nine red knots from 1" to 1 1/4" in size. |
| No. 8. 1x12"-10' | A dozen small red knots, and four red knots from 1" to 1 1/2" in size, also a small streak of light pitch running out from one of the knots. |



Number 1 Common — Ponderosa Pine

Number 2 Common Ponderosa Pine

Number 2 Common, a very popular grade, represents a large percentage of the total production of Ponderosa Pine lumber. An all-around utility grade, it is suitable for all uses where a good grade of Common is required. It contains the same type of defects as No. 1, but in greater degree.

Generally similar to No. 1 in appearance, No. 2 allows larger and more pronounced characteristics. In narrow widths, knots are usually limited to $2\frac{1}{2}$ " in diameter, and in wider widths to $3\frac{1}{2}$ ", but the average is considerably less than the maximum.

Heart pith, pitch and an occasional spike or branch knot are admissible in pieces falling in the lower end of the grade. Pitch pockets and season checks are slightly more prominent and numerous than in No. 1. Medium stain extending over the face is admissible if the board is otherwise a high type No. 2.

No. 2 is a good grade of Common and is used for concrete forms, top grade house sheathing, barn siding, dressed and matched flooring, ceiling, siding, shelving and for exterior parts of farm and factory buildings and economy homes.

Selected pieces are used extensively for Knotty Pine paneling when a larger knot type is preferred over the small, round tight knots of No. 1.

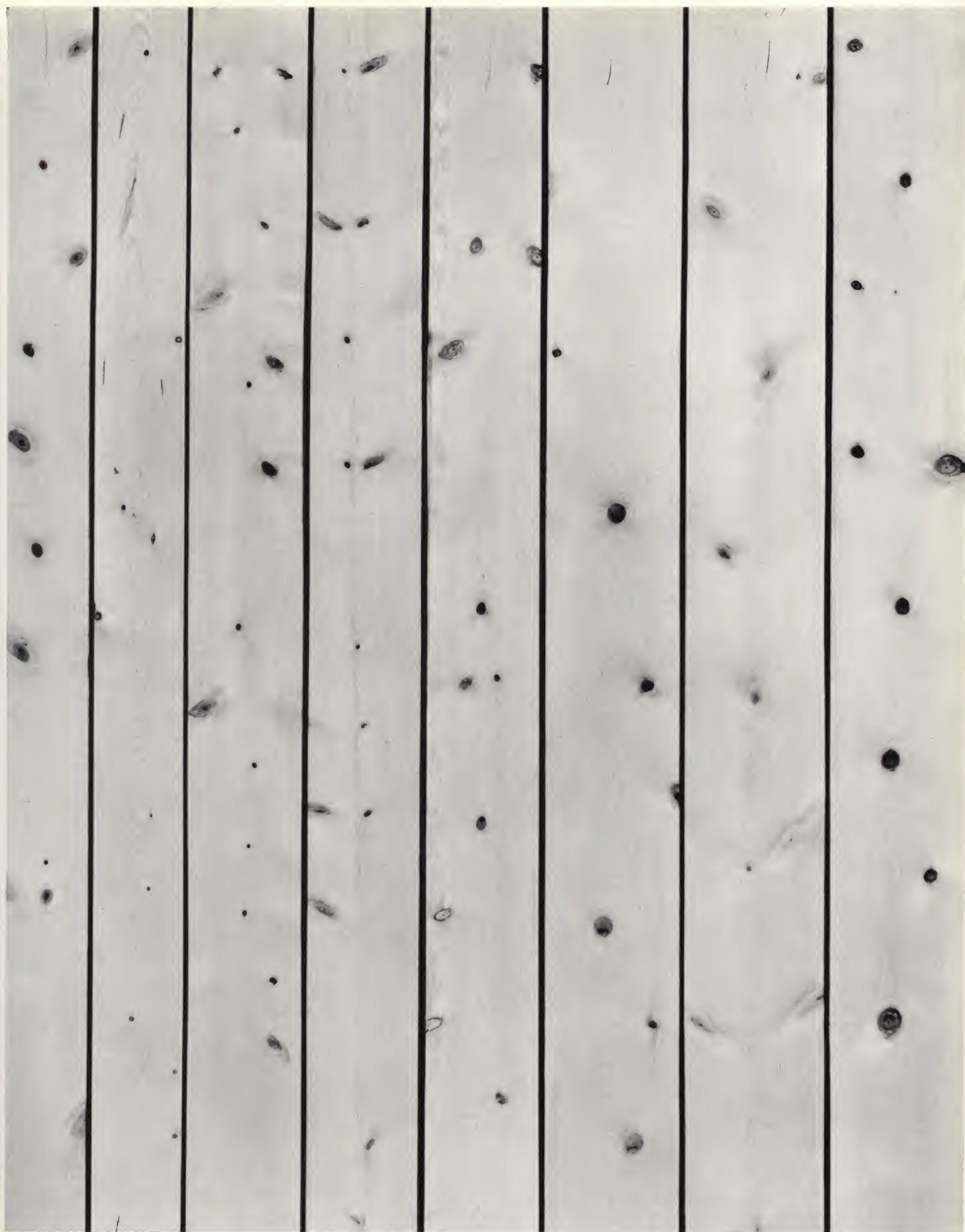
Examples of No. 2 Common Ponderosa Pine

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|------------------|--|
| No. 1. 1x8"-10' | Five red knots $1\frac{3}{4}$ " to $2\frac{1}{4}$ " in size, also six other red knots from $\frac{1}{2}$ " to $1\frac{1}{4}$ ". All of these knots are smooth in appearance. |
| No. 2. 1x8"-10' | Ten tight black knots $\frac{3}{4}$ " and less in size well scattered, three small pitch pockets, and one $\frac{1}{2}$ " heavy pitch streak 6" long. |
| No. 3. 1x10"-10' | Thirteen tight knots from $\frac{1}{2}$ " to $1\frac{1}{2}$ ", and two knots $2\frac{1}{2}$ " in size. Three of the smaller knots are black, and the piece also has two small spots of torn grain. |
| No. 4. 1x10"-10' | Very smooth in appearance with fifteen red knots $1\frac{1}{2}$ " and less in size, a small amount of heart pith and medium pitch scattered over the face for three feet at one end. |
| No. 5. 1x10"-10' | A dozen tight knots from $\frac{3}{4}$ " to 2" in size, and 2" of medium blue stain on each edge full length. |
| No. 6. 1x12"-10' | Three red knots $2\frac{1}{4}$ " in size and four smaller knots all tight. Also a $\frac{3}{4}$ " slough knot on one edge and two small spots of medium pitch. |
| No. 7. 1x12"-10' | Ten red knots from $\frac{3}{4}$ " to $2\frac{1}{4}$ " in size, also 2 branch knots 3" long running out to the edge. |
| No. 8. 1x12"-10' | One $\frac{3}{4}$ " tight black knot, six red knots $1\frac{1}{2}$ " and less in size, also two smooth red knots $2\frac{1}{2}$ " in diameter. |



Grades and Uses of PONDEROSA PINE

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Number 2 Common — Ponderosa Pine

Number 3 Common Ponderosa Pine

Number 3 comprises pieces of less uniform appearance than those in the two higher Common grades, varying from a piece of otherwise No. 1 or No. 2 quality with a single characteristic which causes it to Grade No. 3, down to pieces showing numerous coarse knots, or boards with loose knots or an occasional knot hole. A piece containing a knot hole is generally of otherwise high quality.

A limited amount of heart shake and pitch may be found in low line pieces of No. 3, provided they do not occur in serious combination with other defects. Any amount of blue stain is permissible in otherwise high quality pieces. A type frequently found is a piece with a No. 2 face, but showing several skips in dressing or roller checks on the back.

Generally speaking, No. 3 takes in much of the lower product of the log and although the appearance is coarse, it is a good general utility board and available in large volume.

No. 3 furnishes economical material for uses which normally require No. 2—ceiling, siding, shelving, trim for summer cottages, etc. It is also utilized as a better grade for purposes such as shiplap, sheathing, sub-flooring, roof sheathing, etc., which often take a lower quality material. No. 3 is also used for boxes and crates.



Examples of No. 3 Common Ponderosa Pine

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| No. 1. 1x8"-10' | Seven red knots 2" and less, a 1¼" sloughed knot on one edge and a season check 10" long. |
| No. 2. 1x8"-10' | A 1¼" pitch scab, four small red and black knots all tight and five red knots from 2½" to 4" in size. |
| No. 3. 1x10"-10' | A dozen black knots from ½" to 1¼". One of the smaller knots is not firmly set. |
| No. 4. 1x10"-10' | Seven small red knots, 4' of heart pith and shake, and two ½" streaks of light pitch for five feet. |
| No. 5. 1x10"-10' | A branch knot on one edge 2"x3", 8 smaller knots both red and black, and two-thirds of the face is covered with a medium brown stain. |
| No. 6. 1x12"-10' | Three feet of firm heart pith, a dozen small red knots, and three branch knots 5" long, running out to the edge. |
| No. 7. 1x12"-10' | Eleven red knots from ¾" to 2¼" in size, and knot hole 1¼" in size on one edge near one end. |
| No. 8. 1x12"-10' | Two 1" tight black knots, five red knots 1" in size, and three large red knots from 2¾" to 4" in diameter. |

Grades and Uses of PONDEROSA PINE

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Number 3 Common — Ponderosa Pine



Grades and Uses of PONDEROSA PINE

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Number 4 Common Ponderosa Pine

The general appearance of part of No. 4 is coarse due to very large knots. Other pieces may contain large worm holes, knotholes, red rot, splits, wane or excessive heart shake. Usually, however, the grade contains a fair proportion of good quality stock which would grade No. 3 were it not for some single defect that places it in No. 4. The amount of very coarse defects may cause some waste in some uses. No broken or untrimmed pieces, however, are allowed in No. 4.

No. 4 is used as an economy lining lumber in residential construction. It is an important grade to box factories for boxing and crating. While waste develops in cutting out defective portions, it will produce clear serviceable cuttings for many shipping containers.

No. 4 is also used in industry as a temporary construction material or in places where poor appearance will not detract from serviceability.

Examples of No. 4 Common Ponderosa Pine

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| No. 1. 1x8"-10' | Contains twelve small red knots, 3' of heart shake, and a 5-foot streak of red stain, 5" at widest portion. |
| No. 2. 1x8"-10' | Has fourteen small red knots, which are well scattered, an intergrown branch knot 1 1/4"x5" and medium to massed pitch 3" wide for 4'. |
| No. 3. 1x10"-10' | Ten well distributed red knots, two branch knots, the largest being 2" wide, 4" long, one medium size pitch pocket, 1' of medium heart pith and 7' of tight season checks and heart shake. |
| No. 4. 1x10"-10' | Has seven small tight knots, both red and black, one 3" sound knot. One edge has a 1 1/4" sloughed knot hole and opposite edge has a knot hole 1 1/2" in size. |
| No. 5. 1x10"-10' | There are nine red knots, the largest 3" in size, a break across the grain occurs near one of the knots and two show rather open, broken centers. |
| No. 6. 1x12"-10' | A dozen red knots 3/4" to 2" in size, and wide open season checks for two-thirds the length of the piece, also some torn grain. |
| No. 7. 1x12"-10' | Three large branch knots, 6' of spongy heart pith, and a skip in dressing 6" wide and 2' long. |
| No. 8. 1x12"-10' | Six black knots 1" in size, one of these is loose, one 1" knot hole near one end, and the same end has a patch of stain 4" wide and 3' long. In center is a 1' season check and a shorter one at the end. |



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Number 4 Common — Ponderosa Pine



Grades and Uses of PONDEROSA PINE

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Number 5 Common Ponderosa Pine

Number 5 is the lowest standard grade of Ponderosa Pine and may contain all defects found in the species. Defects are generally the same as in No. 4 but in greater degree and combination. Although pieces in No. 5 are of lowest quality, every piece is properly edged and trimmed to standard sizes.

Normal usage for No. 5 is in temporary or low cost construction, dunnage and grain doors. It also may be ripped to narrow widths or cut to shorter lengths to produce smaller pieces of higher quality.

Examples of No. 5 Common Ponderosa Pine

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|------------------|---|
| No. 1. 1x8"-10' | Heavy pitch over one-third of face, three spots of soft rot, and a number of large worm holes scattered over one-third of the face. |
| No. 2. 1x8"-10' | Ten knots one inch and less in size, half the face covered with a heavy blue stain, and a number of large worm holes scattered over the face. |
| No. 3. 1x10"-10' | A dozen red knots from $\frac{3}{4}$ " to 2" in size, and wide open badly shattered heart shake full length of the piece. |
| No. 4. 1x10"-10' | Three 1" knot holes, a season check 12" long, and red rot over the face full length. |
| No. 5. 1x10"-10' | Half a dozen red and black knots, one small hole on edge, half the surface has red rot varying from firm to soft and spongy. |
| No. 6. 1x12"-10' | Five small knots, and a like number of knot holes, also four streaks of massed pitch an inch wide, combined length 10'. |
| No. 7. 1x12"-10' | Three 1" black knots, three 2" knot holes and four spots of very soft rot. |
| No. 8. 1x12"-10' | Two knot holes 1" in diameter, the face also shows a great deal of soft rot. |



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Number 5 Common — Ponderosa Pine

Bevel Siding

Bevel Siding is run from Select grades of Ponderosa Pine and is graded from the face side only. The thick edge is considered part of the face. Defects on the thin side of the face which will cover when laid are not given the same consideration as others. It is assumed that $3/4$ " will be covered in 4" siding, 1" in 6" siding, and $1\frac{1}{2}$ " in siding wider than 6".

Bevel Siding in all grades consists of 1" lumber surfaced on four sides and resawn diagonally, the thin edge of resawn pieces measuring $3/16$ " and the thick edge $7/16$ ", in nominal 4", 5" and 6" widths. Finished widths are $1/2$ " less than nominal widths.

Shipments of Bevel Siding may contain even and odd lengths in multiples of 6" and are in lengths of 9' and longer although 20 per cent of 3' to $8\frac{1}{2}$ ' is permissible. All stock is tied in bundles.

Wider widths are known as Colonial or Bungalow Siding and are usually resawn from 5/4 lumber.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

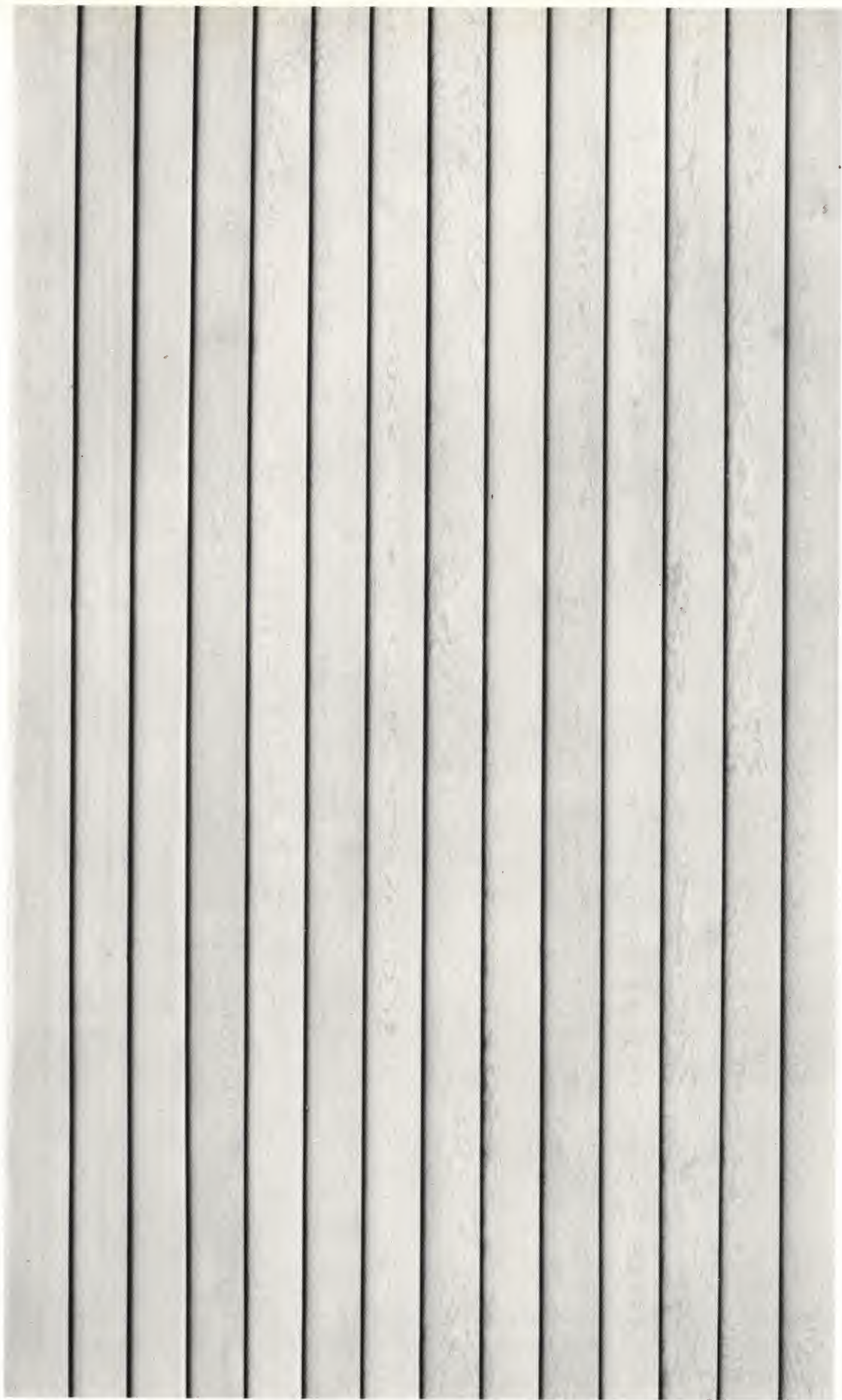
B & Better Bevel Siding Ponderosa Pine

B & Btr Bevel Siding is the highest grade manufactured and is unsurpassed in appearance and quality. Insuring an extremely smooth painting surface, the greater part of it is practically without even minor blemishes. General appearance is clear.

Some pieces may contain one or two small or pin knots, light stain or slightly torn grain or a very small dry pitch pocket that does not go through the piece.

Examples of $1/2 \times 6$ "-10' B&Btr Siding Ponderosa Pine

- No. 1 One small spot of brown crossing stain in center.
- No. 2 Piece is perfect.
- No. 3 A small spot of light torn grain at center.
- No. 4 Very light traces of pitch in center for 6 inches.
- No. 5 Face is perfect, has $1/2$ " of wane for 14 inches which covers when laid.
- No. 6 A perfect face.
- No. 7 A perfect piece.
- No. 8 A perfect face.
- No. 9 One small bark pocket $3/4$ " in length.
- No. 10 A small pitch pocket at one end.
- No. 11 A patch of torn grain on thick edge 2" long.
- No. 12 Light brown stain at one end for 12 inches.
- No. 13 A very small bark pocket barely perceptible, also some light torn grain for 3 inches.
- No. 14 Piece is perfect with the exception of a spot of light pitch $1/2 \times 1$ ".



1 2 3 4 5 6 7 8 9 10 11 12 13 14

B & Better Bevel Siding — Ponderosa Pine



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

C Bevel Siding Ponderosa Pine

C Siding is the next grade to B & Btr and is a good, high grade for any job where a highly serviceable siding is required. Pieces which require a cut not to exceed 4" of waste are allowed in siding 12' long or longer when the remaining portion is approximately of B & Btr quality, but the number is limited.

Occasional small knots, light pitch, medium stain, slightly torn grain or season checks are recognized if not in serious combination. The grade always retains a good appearance and smooth painting surface.

Examples of 1/2x6"-10' C Siding Ponderosa Pine

- No. 1 A pitch pocket 1/8"x2 1/2" in center.
- No. 2 Two spots of medium torn grain each about 2" in diameter near center.
- No. 3 A streak of light pitch 1" wide and 3' long, otherwise perfect.
- No. 4 One pin knot near one end and in center is a 1/4" black pin knot and a bark pocket 1/4" wide and 1" long.
- No. 5 Two dry pitch pockets 3 1/2' from one end. The combined length of pitch pockets is 3".
- No. 6 Medium torn grain in thick edge 4" long.
- No. 7 A pin knot 3/8" in size and two very small pitch pockets.
- No. 8 A pin knot near thick edge and around the knot is a small patch of torn grain. Also another pin knot in center.
- No. 9 Two black knots 3/8" in size and running out from one of the knots is 2" of medium pitch.
- No. 10 At one end is a 5/8" tight black knot, and near other end is a light trace of pitch 10" long.
- No. 11 A pin knot at one end and in the center is a tight black knot 3/4" in size.
- No. 12 Face is perfect with the exception of quite evident traces of pitch for 18" at one end.
- No. 13 In center of piece a light skip in dressing 3" wide and 4" long and one pin knot three feet from end.
- No. 14 One 1/4" black knot with a light spot of pitch surrounding it about an inch in diameter also 1/2" of wane for 2' that covers and pin knot one foot from end.



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C Bevel Siding — Ponderosa Pine



E Bevel Siding Ponderosa Pine

E Siding is always manufactured from stock intended to produce D & Btr Siding and thus usually consists of stock falling just below D Siding. It is generally of higher appearance than it would be if it were manufactured from Common grades.

Since E Siding is the lowest Bevel Siding grade, it admits more numerous and serious defects than those admitted in D Siding. Pieces showing imperfect manufacture are permissible. The grade develops some waste because of the presence of some defects too serious for the entire piece to be used, but is serviceable and economical in low cost construction if kept well painted.

D Bevel Siding Ponderosa Pine

Although the quality is lower and the waste slightly greater than in C Siding, when properly applied and kept well painted the grade of D will present a good appearance. The inherent dimensional stability of Ponderosa Pine gives the user assurance of tight, well fitting corners.

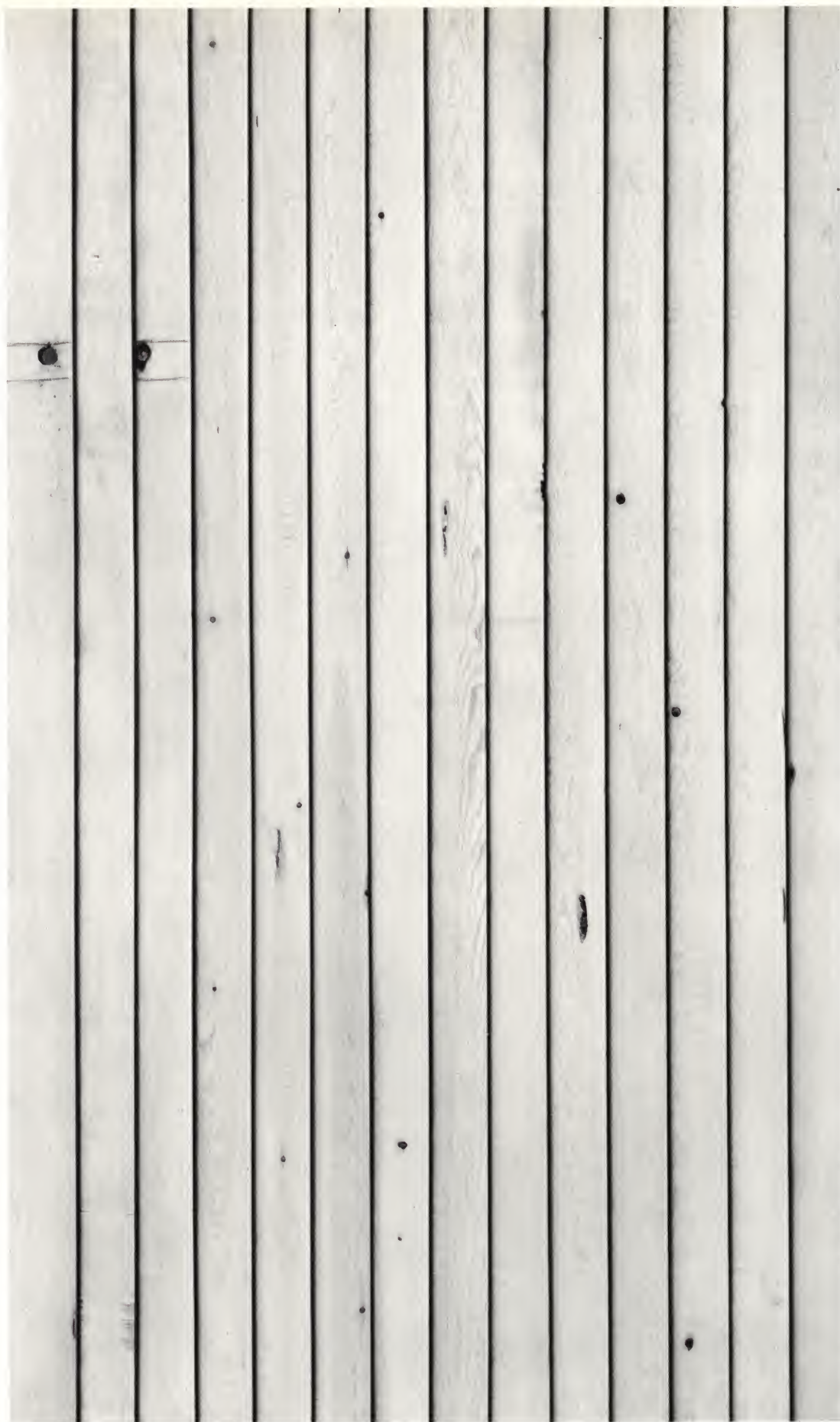
Defects requiring one waste cut not exceeding 4" in a 10' piece and two cuts in a 12' or longer piece are allowed in otherwise high line pieces but only a limited amount is included. D Siding allows considerable pitch and season checks and a number of well scattered small knots or medium stain covering the face in otherwise high grade pieces. Coarse pieces are excluded and the grade retains a Select appearance.

Examples of 1/2"x6"-10' D Siding Ponderosa Pine

- No. 1 At one end is a small bark pocket, 3' from other end is a 2" knot hole. (This is a cutting D.)
- No. 2 Three small smooth skips in dressing, the balance clear.
- No. 3 Three feet from one end is a 2 1/2" black knot which will have to be cut out before laying, otherwise perfect.
- No. 4 Two black pin knots and near one end is a 3/4" red knot, also a small pitch pocket, and an inch of medium brown stain 4' in length.
- No. 5 Two 1/2" black knots, and a pitch pocket 1/2"x4", near one end is a small dry pitch pocket.
- No. 6 Four 1/2" tight black knots, each knot has a small streak of medium pitch extending out from it.
- No. 7 One 3/4" black knot and 2 black pin knots, also 2 small patches of torn grain.
- No. 8 A pitch pocket 1/2"x4" in center; medium pitch for 10" at one end.
- No. 9 A 3/4" black knot on thick edge near center and 3" of torn grain around the knot.
- No. 10 Pitch pocket 1" wide and 4" long, otherwise perfect.
- No. 11 A 1" black knot near center and at one end is a streak of medium pitch 10" long.
- No. 12 At one end is a 3/4" red knot, 3' from other end has a 1/2" sloughed knot, and at center is a 3/4" tight black knot.
- No. 13 Near center are two pitch pockets 1/4" wide and both 3" long.
- No. 14 A 3/4" black knot at center with a small streak of medium pitch, thick edge has considerable torn grain.

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION



1 2 3 4 5 6 7 8 9 10 11 12 13 14

D Bevel Siding — Ponderosa Pine

Dimension Grades

Dimension is graded for strength rather than appearance. Strength is based on the amount of clear wood of straight grain remaining in cross section after deducting for knots or other characteristics which impair strength.

There are four grades of dimension made in Ponderosa Pine, each one graded for strength properties with knot size limited in accordance with grade.

Ponderosa Pine dimension is made in 2" thickness with 3" and 4" and timbers of thicker than 4" available on special order. It is furnished in specified widths from 4" to 12" in 2-inch multiples and in either random or specified lengths from 6' to 16'. Some 18' and 20' is available on special order.

The stock is surfaced to $1\frac{5}{8}$ " or to $1\frac{9}{16}$ " and finished net widths conform to American Lumber Standards. The $1\frac{9}{16}$ " size is furnished "Hit or Miss" when ordered.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Number 1 Dimension Ponderosa Pine

Number 1 Dimension in Ponderosa Pine is a staple product always well seasoned and easy to work on the job. It consists of sound stock well manufactured and suitable for all purposes without waste.

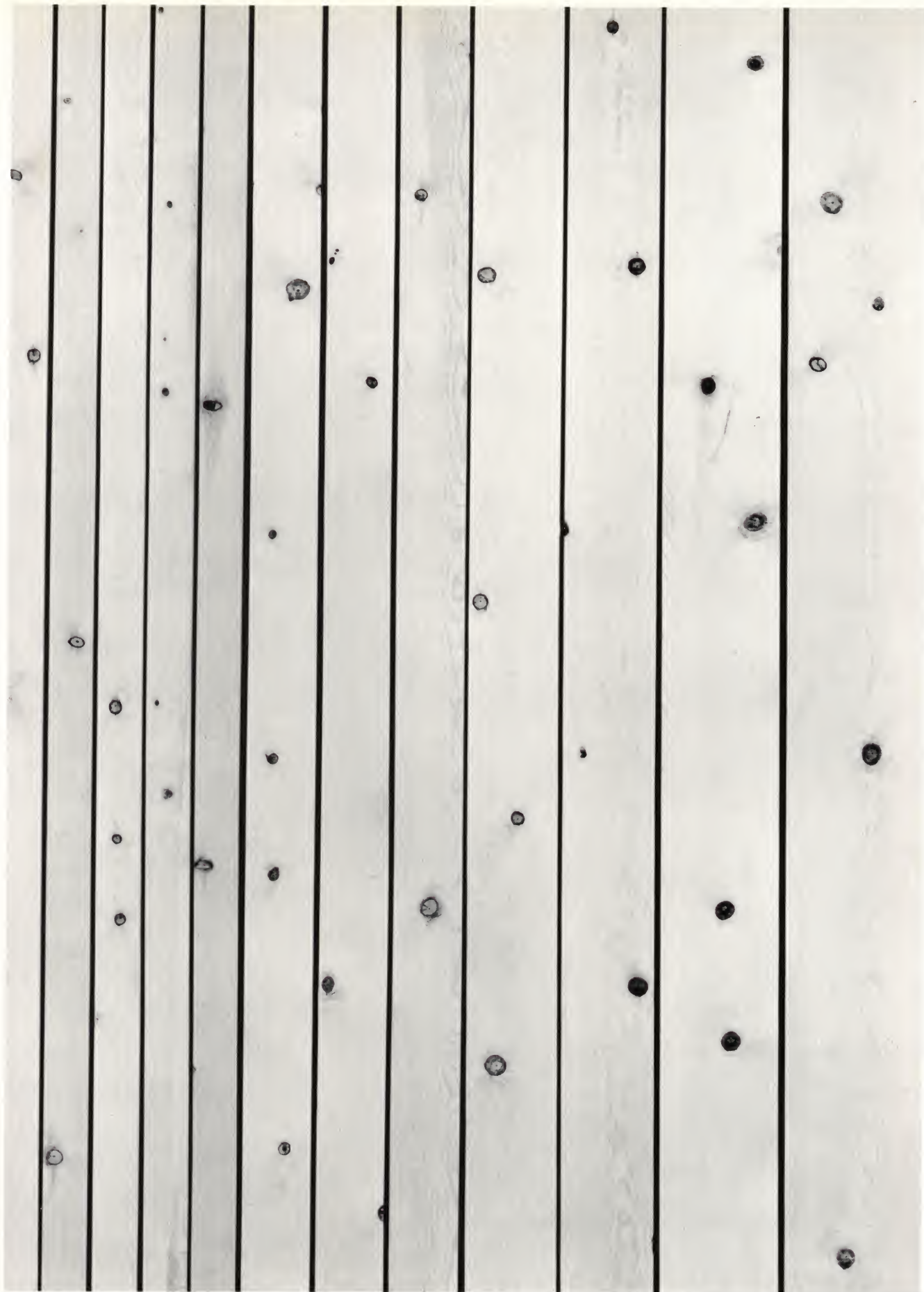
It admits pieces containing pitch, pitch pockets, wane, season check, skips in dressing and knots limited to medium size in 2 x 4" graduated in ratio up to an occasional 3" knot in pieces 12" and wider. An occasional piece may also contain a small knot hole provided it is of otherwise high line quality. No defect which will materially affect its strength or fitness for construction is allowed.

No. 1 Dimension is a good, practical grade for all light house framing and construction studding, rafters, joists, plates, etc.

Examples of No. 1 Dimension Ponderosa Pine

Nominal sizes, S4S $1\frac{5}{8}$ " by standard net widths.

- | | |
|-------------------|--|
| No. 1. 2x4"-10' | Two black knots 1" in diameter, one two feet from the end and the other three feet from same end. Also considerable skip in dressing on the back but no noticeable thinness. |
| No. 2. 2x4"-10' | One medium and one small black knot; two pin knots well scattered, and a slight skip on one edge for three feet. |
| No. 3. 2x4"-10' | Three small black knots near center of piece and season check for three feet at one end. |
| No. 4. 2x4"-10' | Six small red knots, all sound and well scattered, and at one end is one foot of medium blue stain. Reverse side shows three small skips in dressing. |
| No. 5. 2x4"-10' | Two small black knots, one of which has broken out about one-half inch deep; also a small edge knot. |
| No. 6. 2x6"-10' | Six red and black knots from 1" to 2" in diameter, well scattered. |
| No. 7. 2x6"-10' | Three small knots in center of piece and one $1\frac{1}{2}$ " knot on one edge. |
| No. 8. 2x6"-10' | One 1-inch black knot, not firmly set, and one $1\frac{1}{2}$ " tight black knot. |
| No. 9. 2x8"-10' | Four black knots from 1" to 2" in diameter. |
| No. 10. 2x8"-10' | Four red and black knots up to 2", well scattered; also one small slough on edge. Reverse side shows one-half inch of wane for two feet. |
| No. 11. 2x10"-10' | Six red knots up to two inches in diameter with checked centers, and one small pitch pocket. |
| No. 12. 2x12"-10' | Five red and black knots up to two inches in diameter that do not materially weaken the piece, and considerable skip in dressing, not too thin. |



1 2 3 4 5 6 7 8 9 10 11 12

Number 1 Dimension — Ponderosa Pine



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Number 2 Dimension Ponderosa Pine

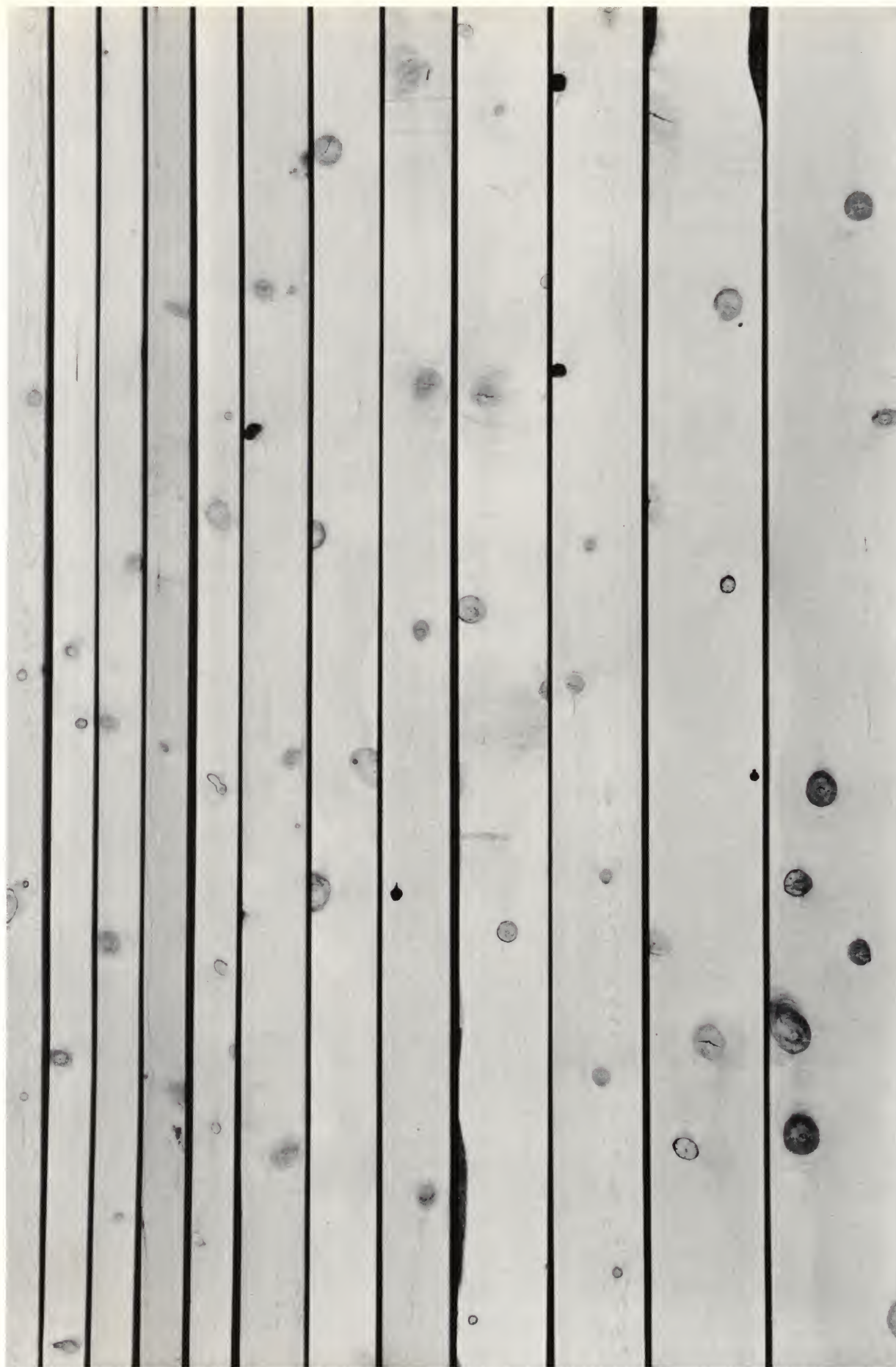
Number 2 Dimension is used wherever the need for quality is slightly less exacting. It is eminently suitable for economy construction.

Characteristics are much the same as those in No. 1 although frequently larger and in greater combination. No. 2 admits large pitch pockets, wane, season checks, short straight splits, heavy skips in dressing and crooked pieces proportionate to size. Knots are limited to an occasional 2" knot in 4" widths increasing to 4½" in 12" and wider pieces.

No. 2 also admits knot holes and loose knots provided they do not weaken the piece more than the knots specified above. A serious combination is not admissible in any one piece.

Examples of No. 2 Dimension Ponderosa Pine

- | | |
|-------------------|---|
| No. 1. 2x4"-10' | Has seven red knots from ¾" to 1¼" and an intergrown knot 2" in size. |
| No. 2. 2x4"-10' | Four tight knots from 1" to 2" in size and a medium pitch seam. |
| No. 3. 2x4"-10' | Five red knots ¾" to 2" in size. |
| No. 4. 2x4"-10' | Four small red knots and 5' of tight heart shake along one edge. |
| No. 5. 2x4"-10' | Has a red knot 2" in diameter and six small tight knots. |
| No. 6. 2x6"-10' | Has eight small red knots, a red knot 2½" in size, and a medium edge slough. |
| No. 7. 2x6"-10' | Four red knots, the largest 2¾" in size. |
| No. 8. 2x6"-10' | A knot hole of medium size and four red knots 1½" to 2¾", plus a short skip in dressing. |
| No. 9. 2x8"-10' | Has an inch of wane for 2', two heavy skips in dressing and 9 red knots, the largest of which is 3½" in diameter. |
| No. 10. 2x8"-10' | Six red knots, the largest 2", two knot holes of medium size, and rather heavy wane for 2' on one edge. |
| No. 11. 2x10"-10' | At one end has an inch of wane on both edges 1' in length and six knots from 1½" to 3½" in size. |
| No. 12. 2x12"-10' | Eight red knots, the largest 4½" in size, and a rather serious manufacturing mark near the center. |



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Number 2 Dimension — Ponderosa Pine



Number 4 Dimension Ponderosa Pine

Number 4 Dimension is the lowest recognized grade of dimension and admits all defects found in lumber, provided the piece is of usable quality.

It is used for elevator cribbing, dunnage, blocking, bracing and purposes where good material of short lengths can be utilized.

Number 3 Dimension Ponderosa Pine

Number 3 Dimension admits all defects found in higher grades but in more pronounced form. It may contain knots ranging from $2\frac{1}{2}$ " in nominal 4" pieces to 5" in 12" and wider. Loose knots and knot holes and branch and spike knots are admissible if they do not weaken the piece more than the knots specified above.

Heavy wane which still leaves some nailing surface for virtually the full length of the piece, firm honeycomb, patches of soft rot, large worm holes, pitch seams, shake or heavy season checks and fairly straight splits are also permissible. Skips in dressing not more than $\frac{1}{4}$ " scant of standard dressed sizes for half the length or $\frac{1}{8}$ " scant full length are admissible in pieces of otherwise No. 2 Dimension quality. No serious combination of any of the above defects is admissible in any one piece.

No. 3 Dimension is used for low cost or temporary construction, elevator cribbing and crating.

Examples of No. 3 Dimension Ponderosa Pine

- | | | |
|---------|-----------|--|
| No. 1. | 2x4"-10' | One 2" knot hole, two firmly set black knots from 1" to $1\frac{1}{2}$ " in size; near center are two knots close together, one 1" and the other 2" in size. |
| No. 2. | 2x4"-10' | Two knots from $2\frac{1}{4}$ " to $2\frac{1}{2}$ " in size, streak of heavy pitch nearly 3' long. |
| No. 3. | 2x4"-10' | Three knots from 2" to $2\frac{1}{2}$ " in size. |
| No. 4. | 2x4"-10' | One $2\frac{1}{4}$ " knot and a knot hole approximately the same size. |
| No. 5. | 2x4"-10' | Three knots from 1" to 2" in size and a small knot hole. Back has 1" of wane on one edge for five feet. |
| No. 6. | 2x6"-10' | Six knots the largest of which is $3\frac{1}{4}$ ". |
| No. 7. | 2x6"-10' | Six knots from $1\frac{1}{2}$ " to $2\frac{1}{2}$ " in size and 5' of heavy season checks scattered along center of face. |
| No. 8. | 2x6"-10' | Five knots from $\frac{3}{4}$ " to 3" in size. One of the knots has broken out in milling to leave $1\frac{1}{2}$ " hole. |
| No. 9. | 2x8"-10' | Four 2" knots, one $1\frac{3}{4}$ " knot hole and four feet of shake near one end. |
| No. 10. | 2x8"-10' | Several small knots, 3' of medium heart shake along center line, patch of rot varying from firm to soft near center. |
| No. 11. | 2x10"-10' | Seven knots, the largest of which is $4\frac{1}{2}$ ". |
| No. 12. | 2x12"-10' | Largest knot is 2". Two feet of tight shake near one end, approximately one dozen large worm holes toward other end, 3"x12" patch of firm rot near center. |

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION



1 2 3 4 5 6 7 8 9 10 11 12

Number 3 Dimension — Ponderosa Pine

Factory Grades

Factory grades are determined by the amount of clear cuttings of specified sizes obtainable in each piece. No attention is paid to appearance of the lumber and pieces

may have knot holes, large knots, wane, splits or other imperfections which can be eliminated in figuring the percentages necessary to make the required grade.

5/4 AND THICKER FACTORY GRADES

Factory lumber 5/4 and thicker is sorted into four grades—Factory Select or No. 3 Clear, No. 1 Shop, No. 2 Shop and No. 3—according to the percentage of cuttings which can be obtained from each piece. All grades are made in 5/4 (1 1/4"), 6/4 (1 1/2"), 7/4 (1 3/4") and 8/4 (2") with 10/4 (2 1/2") and thicker available from some mills. Widths run 5" and wider and lengths from 6' in multiples of 1' or 2'.

Cuttings in 5/4 and thicker Factory lumber are stiles, muntins, bottom rails, top rails and sash stock. Sizes

are: stiles—5" and 6" wide, from 6'8" to 7'6" long; muntins—5" and 6" wide, from 3'6" to 4' long; top rails—5" and 6" wide, from 2'4" to 3' long; bottom rails—9" and 10" wide from 2'4" to 3' long; sash cuts—2 1/2" and over in width by 2'4" and over in length.

Two grades of cutting are recognized: No. 1 cuttings are free from defects on both sides except for one barely perceptible bark pocket or pitch blemish; No. 2 cuttings permit minor imperfections which do not detract from the use intended.

5/4 and Thicker Factory Select (Number 3 Clear) Ponderosa Pine

Factory Select is the highest grade of Factory lumber and is intended for use by sash and door factories and other architectural woodwork concerns.

Not over two muntins are admissible in any one piece and no piece is included in the grade if it contains muntins only. The grade is determined from the poor side of the piece. Factory Select contains 70 per cent or more of No. 1 cuttings, except one No. 2 door stile

is permitted in pieces containing one No. 1 stile or two or more No. 1 door cuttings.

Factory Select is highly recommended for its cutting qualities and is well suited for manufacture into a wide variety of woodwork articles as well as for manufacture into doors. It is worked into mouldings and trim with practically no waste. It furnishes a large percentage of door stiles.

5" x 7'6" = 3 Ft. - STILE		5" x 7'6" = 3 Ft. - STILE	
5" x 7'6" = 3 Ft. - STILE		5" x 48" = 1 3/4 Ft. - MUNTIN	
10" x 30" = 2 Ft. BOTTOM RAIL	10" x 36" = 2 1/2 Ft. BOTTOM RAIL	9" x 34" = 2 Ft. BOTTOM RAIL	10" x 34" = 2 1/4 Ft. BOTTOM RAIL
			10" x 28" = 2 Ft. BOTTOM RAIL

Factory Select (No. 3 Clear)—This piece is 21 inches wide by 16 feet long. It scales 28 feet surface measure. It contains 83.2% of cuttings.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Examples of 5/4 and Thicker Factory Select (No. 3 Clear)

- No. 1. 6/4x6"-10' One No. 1 Stile 6" wide, 7'-6" long.
- No. 2. 6/4x10"-10' Two No. 1 Stiles 5" wide, 7'-6" long.
- No. 3. 6/4x11"-10' One No. 1 Stile 6" wide, 7' long. One Bottom Rail 9" wide, 2'-4" long. Also one No. 1 Muntin 5" wide, 4' long.
- No. 4. 6/4x16"-10' One No. 1 Bottom Rail 10" wide, 3' long. Two No. 1 Stiles 5" wide, 6'-8" long and one No. 1 Stile 6" wide, 7'-6" long.
- No. 5. 6/4x18"-10' One No. 1 Stile 6" wide, 7'-6" long and one No. 1 Stile 5" wide, 6'-8" long. Also one No. 1 Muntin 6" wide, 3'-6" long and one No. 1 Muntin 6" wide, 4' long.
- No. 6. 6/4x20"-10' One No. 1 Stile 6" wide, 7'-6" long and one No. 1 Stile 5" wide, 7'-2" long. Two No. 1 Bottom Rails 9" wide, 2'-4" long. Also one No. 1 Muntin 6" wide, 4' long.



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5/4 and Thicker Factory Select (Number 3 Clear) — Ponderosa Pine

5/4 and Thicker Number 1 Shop Ponderosa Pine

Number 1 Shop is the second highest cutting grade intended for factory use. Requirements are that each piece contain from 50 to 70 per cent of door cuttings all of No. 1 quality except for one No. 2 stile.

No. 1 Shop lumber in Ponderosa Pine is a widely recognized standard at millwork plants for re-manufacturing purposes. Its chief characteristics are freedom from warp and twist. Well scattered knots increase the number of long clear cuts, so desirable in the factory.

10"x28"-2 Ft. BOTTOM RAIL	6"x7'-0"=3 1/2 Ft.-STILE	10"x36"-2 1/2 Ft. BOTTOM RAIL
6"x7'-6"=3 3/4 Ft.-STILE	6"x48"-2 Ft. MUNTIN	
6"x7'-6"=3 3/4 Ft.-STILE	6"x48"-2 Ft. MUNTIN	

No. 1 Shop—This piece is 25 inches wide by 16 feet long, and scales 33 feet surface measure. The total footage of acceptable door cuttings is 19 1/4 feet, or 59%.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Examples of No. 1 Shop Ponderosa Pine

- No. 1. 5/4x10"-10' One No. 1 Stile 5" wide, 7'-6" long. One No. 1 Muntin 5" wide, 4' long.
- No. 2. 5/4x10"-10' Two No. 1 10" Rails. One is 28" and the other 32" long.
- No. 3. 5/4x12"-10' One No. 1 Rail 9" wide and 28" long at one end. One No. 2 Stile 5" wide and 6'-8" long. Also one No. 1 Muntin 6" wide, 4' long.
- No. 4. 5/4x14"-10' At one end is a No. 1 Rail 10" wide and 28" long. One No. 1 Stile 5" wide and 6'-8" long. Also a No. 1 Muntin 6" wide and 4' long.
- No. 5. 5/4x16"-10' One No. 1 Stile 6" wide and 7'-4" long and a No. 2 Stile 5" wide, 7'-6" long. Also a No. 1 Muntin 5" wide and 4' long.
- No. 6. 5/4x18"-10' One No. 1 Stile 6" wide, 7'-6" long. Also two No. 1 Rails 10" wide and 3' long.



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5/4 and Thicker Number 1 Shop — Ponderosa Pine

5/4 and Thicker Number 2 Shop Ponderosa Pine

Each piece of No. 2 Shop produces one of the following percentages of door cuttings: 25 per cent of No. 1 cuttings; 33-1/3 per cent of mixed No. 1 and No. 2 cuttings; 40 per cent of No. 2 cuttings in the same sizes as specified for No. 1 Shop and including top rails which must be of No. 1 quality but are counted as No. 2 cuttings.

No. 2 Shop is used by the industrial trade, and by woodworking plants producing doors, sash, frames, trim and mouldings.

5'x48"=1 3/4 Ft. MUNTIN	10'x28"=2 Ft. BOTTOM RAIL
5'x6'8"=3 Ft. STILE	5'x44"=1 1/2 Ft. MUNTIN
5'x48"=1 3/4 Ft. MUNTIN	10'x28"=2 Ft. BOTTOM RAIL

No. 2 Shop—This piece is 20 1/2 inches wide by 16 feet long. It scales 27 feet surface measure and the total footage of acceptable door cuttings is 12 feet, or 44.4%.



Examples of No. 2 Shop Ponderosa Pine

- No. 1. 5/4x12"-10' One No. 1 Rail 10" wide, 3' long. One No. 1 Muntin 5" wide, 4' long.
- No. 2. 5/4x12"-10' One No. 1 Rail 9" wide, 2'-4" long, and a No. 2 Rail 10" wide, 32" long.
- No. 3. 5/4x12"-10' One Muntin 5" wide, 3'-8" long, and another Muntin 5" wide, 4' long. Both are No. 1.
- No. 4. 5/4x14"-10' One No. 1 Rail 10" wide and 3' long, and another No. 1 Rail 9" wide and 28" long.
- No. 5. 5/4x14"-10' One No. 2 Stile 5" wide, 7'-6" long, and a No. 2 Rail 9" wide, 28" long. Also No. 1 Muntin 5" wide and 3'-6" long.
- No. 6. 5/4x18"-10' One No. 1 Stile 6" wide and 7'-6" long, and a No. 1 Muntin 5" wide, 4' long.

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION



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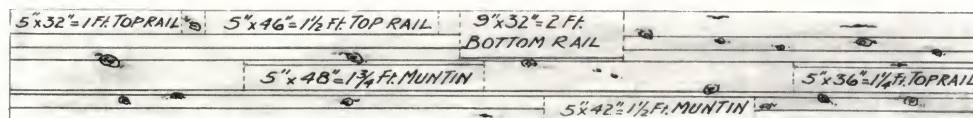
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5/4 and Thicker Number 2 Shop — Ponderosa Pine

5/4 and Thicker Number 3 Shop Ponderosa Pine

Number 3 Shop includes all pieces 5/4 and thicker below the grade of No. 2 Shop with the specific provision that they must be of a cutting type suitable for sash, door and other cuttings. Therefore all pieces where the greater part of the area is of the Common grade type, although having a small percentage of valuable cuttings on the edge or edges, are not considered a cutting type and not included in the grade.

No. 3 Shop is valued chiefly for sash cuttings but produces a good many other valuable cuttings for frames, sills, mouldings, trim and specialty cuttings.



No. 3 Shop—This piece is 22 inches wide by 16 feet long, and scales 30 feet surface measure. It contains 29.1% of No. 1 and 2 door cuttings and 33 $\frac{3}{4}$ % of sash cuttings.

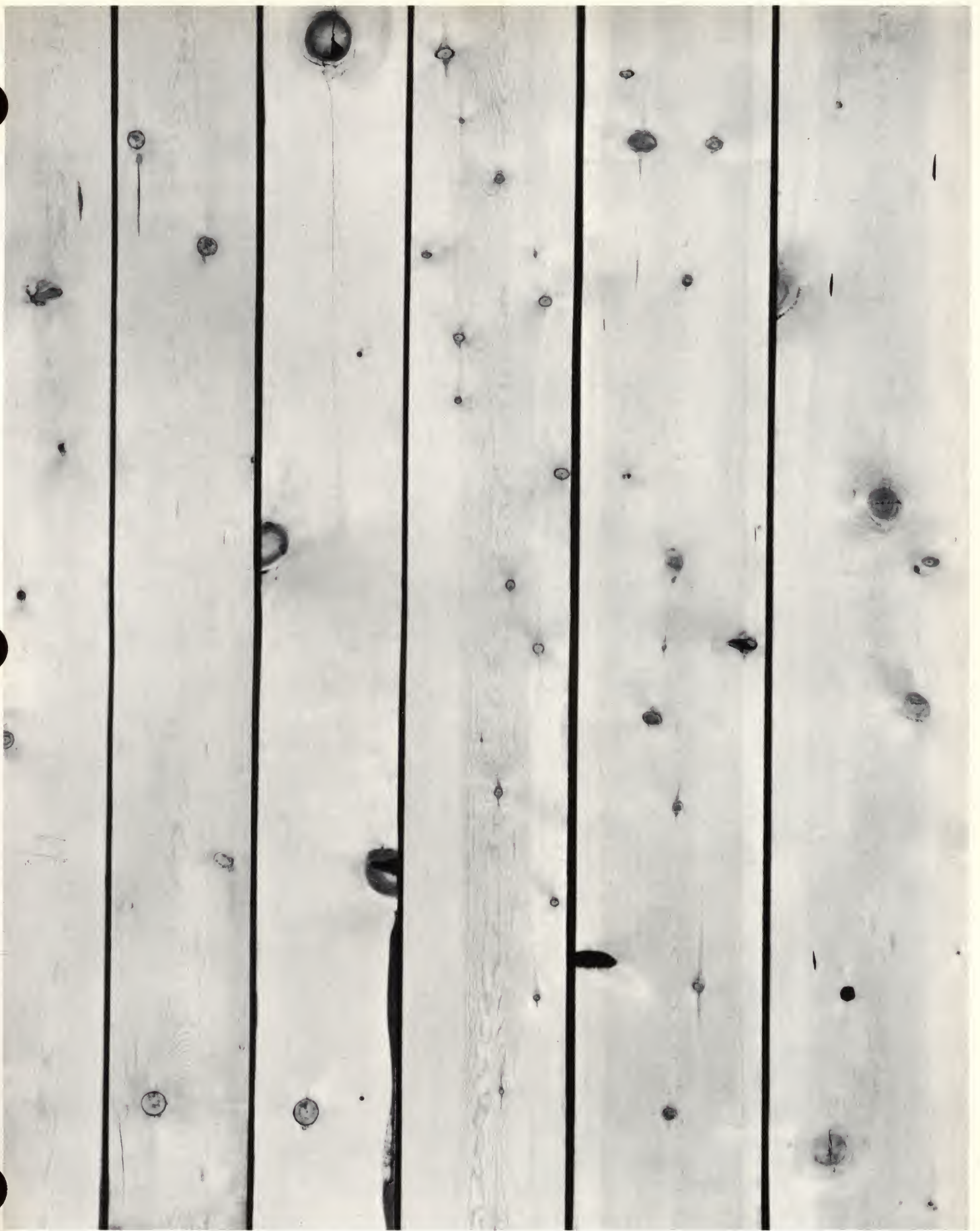


Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Examples of No. 3 Shop Ponderosa Pine

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|--------------------|--|
| No. 1. 5/4x10"-10' | One No. 2 Rail 9" wide, 2'-4" long and 10 lineal feet of Sash cuttings, 2 $\frac{1}{2}$ " wide and wider. |
| No. 2. 5/4x12"-10' | One No. 2 Muntin 6" wide and 4' long, also 9 $\frac{1}{2}$ lineal feet of Sash cuttings. |
| No. 3. 5/4x12"-10' | Two top Rails 5" wide and 3' long, also 6 $\frac{1}{2}$ lineal feet of Sash cuttings. The sash is 4" wide. |
| No. 4. 5/4x14"-10' | A No. 1 Muntin 6" wide and 4' long, and 12 lineal feet of Sash. |
| No. 5. 5/4x16"-10' | One No. 2 Muntin 5" wide and 4' long, one Top Rail 5" wide and 28" long, and 10 lineal feet of Sash. |
| No. 6. 5/4x18"-10' | One No. 1 Rail 10" wide and 3' long, also 14 lineal feet 2 $\frac{1}{2}$ " to 4" Sash. |



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5/4 and Thicker Number 3 Shop — Ponderosa Pine

4/4 FACTORY GRADES

4/4 Factory grades are determined by the amount of clear cuttings of specified sizes obtainable from each piece. Cutting sizes, however, that are used as a basis for determining 4/4 Factory grades differ from the cutting sizes specified for 5/4 & Thicker Factory lumber. For example, 4/4 and 5/4 & Thicker Factory Select are not identical grades as each is based on a different group of cutting sizes. A brief reading of the cutting sizes required for 4/4 Factory Select and 5/4 & Thicker Factory Select will quickly make this apparent.

Like other Factory grades, 4/4 Factory grades are not based on the appearance of the lumber. Pieces may have knot holes, large knots, wane, splits or other imperfections which can be eliminated in figuring the percentage necessary to make the required grade.

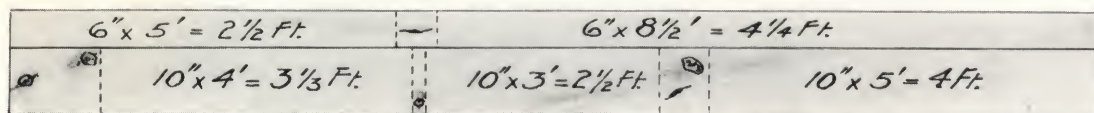
There are three grades of 4/4 Factory lumber—4/4 Factory Select, 4/4 No. 1 Shop and 4/4 No. 2 Shop—depending upon the percentages of cuttings obtainable.

4/4 Factory Select (Number 3 Clear) Ponderosa Pine

4/4 Factory Select is the highest of three grades of 4/4 Factory lumber. It must contain at least 70 per cent of cuttings of the following sizes: (1) 9½" wide or wider by 18" long or longer and (2) 5" wide or wider by 3' long or longer. Any sizes obtainable over these minimums are figured in securing the necessary percentages. Pieces 9½" wide or wider and less than 3' long are free from defects on both sides. Pieces 5" wide or wider and more than 3' long are graded as C Select or better. 4/4 Factory Select is shipped in random widths and lengths 5" and wider and 6' and longer.

Although 70 per cent of cuttings is the minimum requirement of the grade, the bulk of the stock usually contains a higher proportion of high grade cuttings. The principal feature is the large yield of long clear or nearly clear cuttings.

4/4 Factory Select is especially suited for the requirements of cabinet shops, frame and woodwork factories, wood specialty plants and industrial arts schools because of the proportion of long cuttings obtainable with a minimum of waste at reasonable cost.



4/4 Factory Select (No. 3 Clear)—This piece is 16 inches in width and 14 feet in length, and scales 18¾ board feet. It contains 16.6 feet of cuttings, or 88.8%.



Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION

Examples of 4/4 Factory Select (No. 3 Clear)

- No. 1. 4/4x10"-10' One cut 8"x45" in the center at one end and one cut 10"x72" full width or for ripping.
- No. 2. 4/4x12"-10' One cut 6"x114" on one edge and one cut 6"x72" on opposite edge.
- No. 3. 4/4x12"-10' One cut 6"x95" on one edge and one cut 6"x96" on opposite edge.
- No. 4. 4/4x12"-10' One cut 12"x61", full width. Also one cut 6"x51" and one cut 6"x42" on opposite edges.
- No. 5. 4/4x14"-10' On one edge, a cut 7"x53" and another 7"x51". On opposite edge, one cut 7"x36" and another cut 7"x51".
- No. 6. 4/4x18"-10' On one edge, one cut 8"x93". On opposite edge, three cuts, 10"x51", 10"x36" and 10"x28", respectively.



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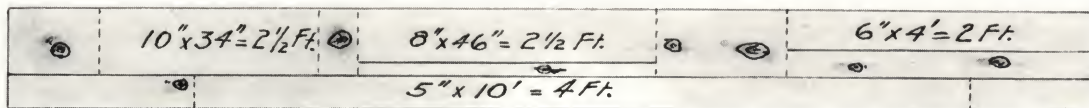
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4/4 Factory Select (Number 3 Clear) — Ponderosa Pine

4/4 Number 1 Shop Ponderosa Pine

Second of three grades of 4/4 Factory lumber, 4/4 No. 1 Shop contains 50 to 70 per cent of the following sized cuttings suitable for general woodwork: (1) $9\frac{1}{2}$ " wide or wider by 18" long or longer and (2) 4" wide or wider by 3' long or longer. Any sizes obtainable over these minimums are figured in securing the necessary percentages. Pieces $9\frac{1}{2}$ " wide or wider and less than 3' long are free from defects on both sides. Pieces 4" wide or wider and more than 3' long are graded as C Select or better. 4/4 No. 1 Shop is shipped in random widths and lengths 4" wide and wider and 6' long and longer.

It is used by cabinet shops, frame and woodwork factories, wood specialty plants and industrial arts schools where pieces of shorter lengths and narrower widths of clear material can be used to advantage.



4/4 No. 1 Shop—The sample above is 15 inches wide by 14 feet long. It scales $17\frac{1}{2}$ board feet, and contains 10.8 feet of cuttings, or 61.9%.



4/4 Number 2 Shop Ponderosa Pine

Lowest of the three grades of 4/4 Factory lumber, 4/4 No. 2 Shop consists of Shop type pieces which do not have the required per cent of cuttings necessary for 4/4 No. 1 Shop. The grade contains not less than $33\frac{1}{3}$ per cent of cuttings of the size and quality permissible in 4/4 No. 1 Shop. Uses for 4/4 No. 2 Shop are the same as for 4/4 No. 1 Shop.

Examples of 4/4 No. 1 Shop Ponderosa Pine

- No. 1. 1x8"-10' One cutting is 6" wide and 3'-2" long. Only defect is one dry pitch pocket $\frac{1}{8}$ " wide and $\frac{1}{2}$ " long. Other cutting in center is 4'-8" long and has 10" of light brown stain. No other defects.
- No. 2. 1x10"-10' Cutting at one end is 6" wide and 3' long, perfect face. Cutting in center is $7\frac{1}{2}$ " wide and 4'-6" long. The only defect is a streak of light pitch $\frac{1}{8}$ " wide, 2" long.
- No. 3. 1x12"-10' One cutting is 6" wide and 6'-8" long, other cutting is 5" wide and 4'-5" long. The face of both cuttings is free from defects but the back shows several small streaks of medium pitch.
- No. 4. 1x12"-10' The cutting at one end is 12" wide and 22" long, perfect on both sides. The other cutting is 8" wide and 6' long. Face shows one spot of medium pitch $\frac{1}{8}$ " wide and 2" long.
- No. 5. 1x12"-10' The cutting at one end is $9\frac{1}{2}$ " wide and 2'-2" long, perfect on both sides. The piece has three other cuttings, two of which are 5" wide and 3'-2" long, both perfect. The third is 5" wide and 3'-10" long and has a 2" spot of light torn grain.
- No. 6. 1x12"-10' One perfect cutting 5" wide, 3' long at one end, one cut 6" wide and 3'-6" long on same edge which shows 2" spot of light crossing stain. On the other edge is a cut 5" wide and 5' long, which also has one small light crossing stain.
- No. 7. 1x18"-10' Has one cutting starting $\frac{1}{2}$ " from the edge 5" wide and 9' long. This cut has two small bark pocket defects. Alongside of this cut is another cut 5" wide and 3'-8" long free from defects. Other edge has a cutting 6" wide by 5'-4" long which has one small bark pocket defect.

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION



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4/4 No. 1 Shop — Ponderosa Pine



Ponderosa Pine Lath

Two grades of Ponderosa Pine lath—No. 1 and No. 2—are manufactured. No. 1, the top grade, is largely perfect with only a small proportion containing minor defects such as small tight knots or a limited amount of wane. Clean and bright, it is used in the finest kind of plaster work.

No. 2 Lath is just as expertly manufactured and inspected as No. 1. Each piece has two good ends for nailing and permits only an occasional knot hole or loose knot, firm streaks of rot, worm holes, pitch and pitch pockets, season checks, or other defects that by themselves do not seriously impair the usefulness of the piece.

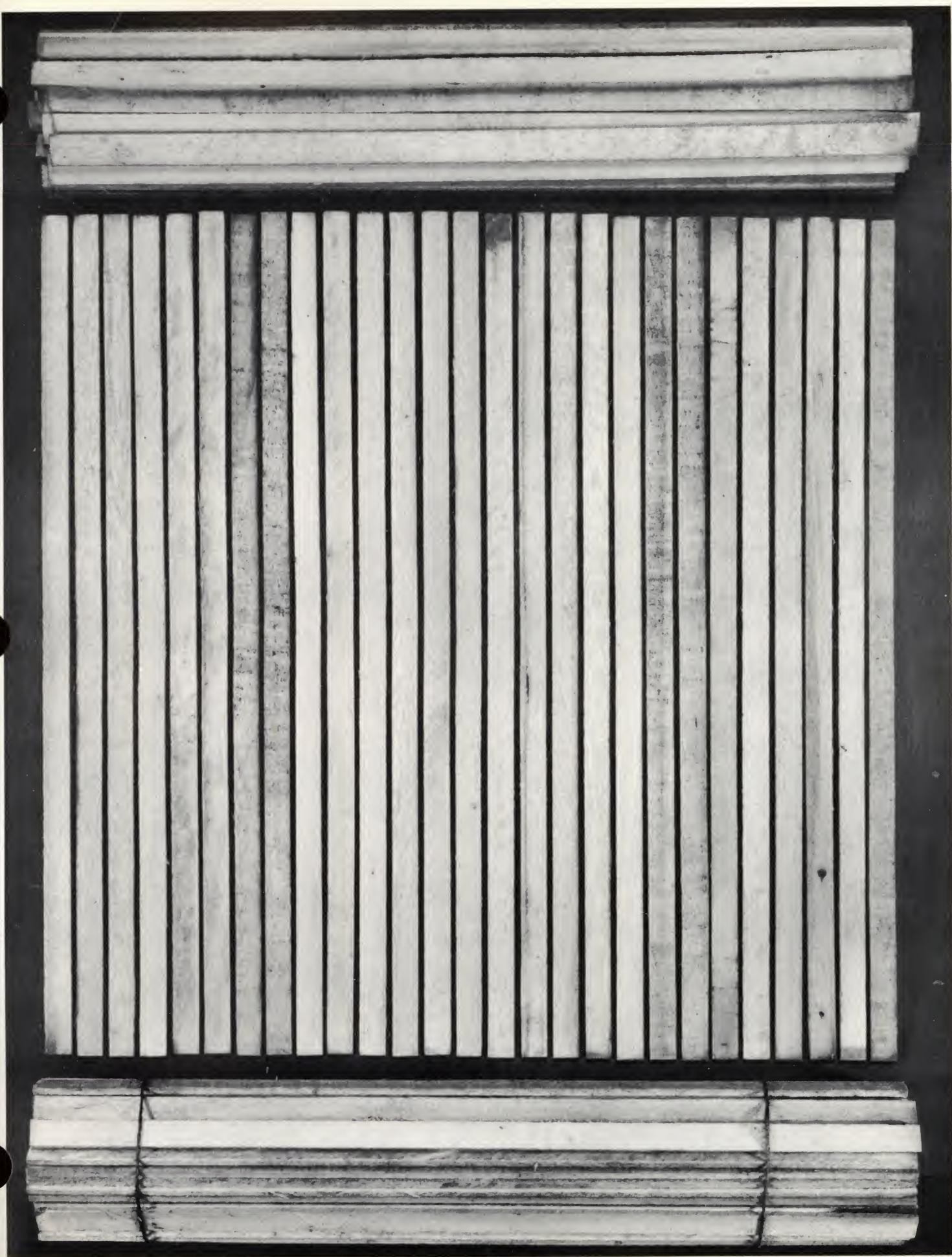
Lath are $1\frac{1}{2}$ " wide and $\frac{3}{8}$ " thick with a small variation allowed. Two lengths, 48" and 32", are made in No. 1 lath. No. 2 is available in 48" only.

Ponderosa Pine lath are preferred for top quality plastering jobs. Their soft texture insures easy and clean cutting without splitting. They do not buckle, shrink or swell, are easy to nail, run true to thickness and are uniformly graded.

Lath are also extensively used for shade frames, woven fences and trellises.

Grades and Uses of PONDEROSA PINE

WESTERN PINE ASSOCIATION



Ponderosa Pine Lath

Moulding Lumber

Moulding Lumber consists of stock suitable for ripping into strips 1" and wider and 6' and longer. Each piece contains not less than 50 per cent of rips of the grade permissible in Standard Mouldings. Up to 15 per cent of stock 6' to 9' may be included provided each piece contains 50 per cent or more of full length moulding rips.

Wane, skips in dressing or other defects that will surface off in making mouldings of standard sizes are admissible in computing the percentage of obtainable rips.

Moulding lumber is manufactured in all Association standard thicknesses and is shipped random length and width. No more than 15 per cent of lengths from 6' to 9' is permitted in a shipment.

Moulding lumber, as the name implies, is used for the manufacture of all types of mouldings.

Standard Mouldings—Ponderosa Pine

Ponderosa Pine mouldings permit such defects as are usable for both interior and exterior trim. These may be light season checks, small pitch pockets, light torn grain,

pin-size and small knots, medium stain or a small amount of pitch. A serious combination of these is not admissible in any one piece.

On the basis of a 1 x 2" — 12', mouldings permit the following characteristics or their equivalent: (1) A small spot of torn grain and 1' of medium pitch, or (2) One small and one very small pitch pocket, or (3) Two pin knots or a small knot together with one other minor defect, or (4) One short, tight season check and a light snipe at one end, or (5) Medium stain for one-half the area in an otherwise perfect piece except that only light stain is admissible in inside mouldings.

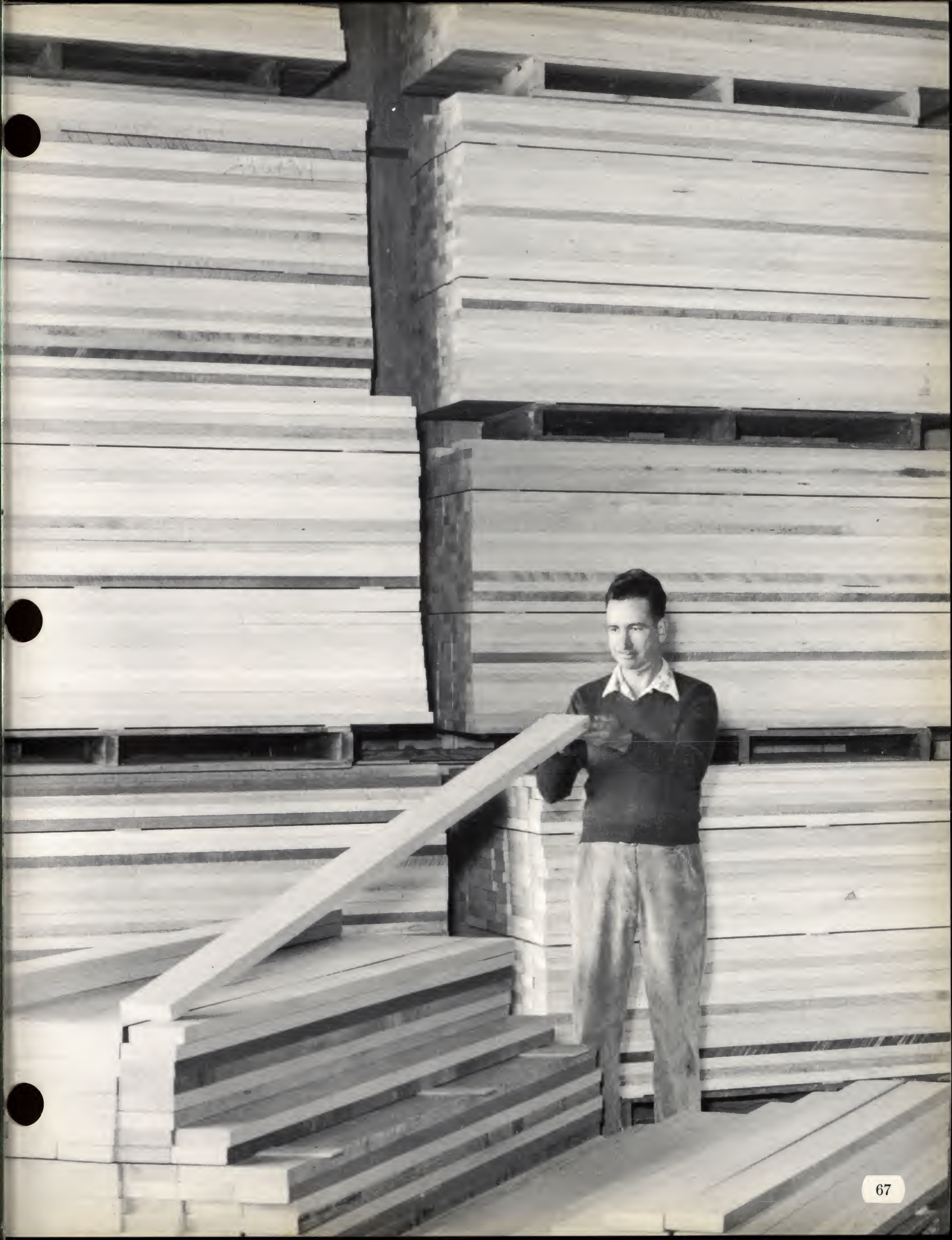
Defects that will not show when the piece is laid are not given the same consideration as defects on the face side. Pieces requiring one cut of not to exceed 4" of waste to eliminate a defect too serious to go in the grade are allowed in otherwise high-line pieces 12' long and longer, but not more than 15 per cent of the cutting type is admissible in any one item.

Standard Mouldings are shipped in lengths from 3' to 20' in multiples of 1', not over 15 per cent under 8' long in any one item, and bundled separately.

Knee Deep in Accuracy

Whatever the grade or size, Ponderosa Pine is smoothly manufactured to precise sizes by Western Pine sawmills. Seasoning is done thoroughly and uniformly *before* the fine lumber is spun through the whirring machines, trimmed, checked and re-checked, graded and re-graded and only then placed in the car for rapid shipment to buyer. Ponderosa Pine is the finest of softwood lumber, manufactured to the highest standards and available now for building and industrial uses everywhere.





RECOMMENDED GRADES OF PONDEROSA PINE

Construction Uses

(Residences and Garages, Multiple Dwellings and Large Buildings)

	<i>Top Grade</i>	<i>Medium Grade</i>	<i>Low Cost</i>
Base - - - - -	B&Btr-C Sel	C Sel-D Sel	D Select
Blinds, Outside - - - - -	No. 1 Blinds	No. 1 Blinds	No. 2 Blinds
Built-in Conveniences- - - - -	B&Btr-C Sel	D Select	2 Com-Inch Shop-1&2 Shop
Casing - - - - -	B&Btr-C Sel	D Select	D Select
Ceiling - - - - -	B&Btr-C Sel	D Select	2 Com-3 Com
Concrete Forms - - - - -	2 Common	3 Common	4 Common
Cornices - - - - -	B&Btr-C Sel	D Select	1 Com-2 Com
Cupboards- - - - -	B&Btr-C Sel	D Select	D Select
Doors - - - - -	No. 1 Doors	No. 2 Doors	No. 2 Doors
Door Frames - - - - -	B&Btr Sel	C Select	D Select
Drain Boards- - - - -	B&Btr Sel	C Select	D Select
Flooring, covered - - - - -	D Select	1 Com-2 Com	1 Com-2 Com
Framing, Light Construction - - - - -	1 Dimension	2 Dimension	2 Dimension
Furniture, Clear- - - - -	B&Btr Sel	C Select	D Select
Furniture, Knotty - - - - -	1 Common	2 Common	2 Common
Jambs - - - - -	C&D Select	1 Common	1 Common
Lath - - - - -	No. 1 Lath	No. 1 Lath	No. 2 Lath
Lath, Byrkit - - - - -	3 Common	4 Common	4 Common
Mouldings - - - - -	Standard Grade	Standard Grade	Standard Grade
Paneling, Clear - - - - -	B&Btr Select	C Select	D Select
Paneling, Knotty - - - - -	Special	1 Com-2 Com	2 Common
Partition - - - - -	B&Btr-C Sel	D Select	2 Common
Porch Columns - - - - -	B&Btr-C Sel	D Select	D Select
Porch Work - - - - -	B&Btr Sel	C Sel-D Sel	1 Com-2 Com
Roof Boards - - - - -	2 Common	3 Common	4 Common
Sheathing - - - - -	2 Common	3 Common	4 Common
Shelving - - - - -	C&D Select	1 Common	2 Com-3 Com
Siding, Bevel- - - - -	B&Btr Siding	C&D Siding	E Siding
Siding, Bungalow - - - - -	B&Btr Select	C Select	D Sel-2 Com
Siding, Colonial- - - - -	B&Btr Select	D Select	2 Common
Siding, Drop - - - - -	C Select	D Sel-1 Com	1 Com-2 Com
Siding, Log Cabin - - - - -	1 Dimension	2 Dimension	2 Dimension
Stepping - - - - -	B&Btr Sel	C Select	2 Common
Subflooring - - - - -	2 Common	3 Common	3 Common
Trim, Cabin - - - - -	D&Btr Sel	1 Com-2 Com	3 Common
Trim, Exterior - - - - -	B&Btr-C Sel	D Select	1 Com-2 Com
Trim, Interior - - - - -	B&Btr Select	C Select	D Select
Wainscoting - - - - -	B&Btr Select	C Select	C&D Select
Window Frames (Special) - - - - -	B&Btr-C Sel	D Sel-1 Com	1 Common
Window Frames (Stock) - - - - -	Clear frame	Clear-No. 1 Frame	No. 2 Frame
Window Sash - - - - -	Standard Sash	Standard Sash	Standard Sash

RECOMMENDED GRADES OF PONDEROSA PINE

Factory Uses

(Special Millwork Factories)

Bins, Flour and Sugar - - -	C Sel-D Sel-1&2 Shop-Inch Shop	Frames, Special Door - - -	C Sel-D Sel-1&2 Shop
Blinds, Exterior - - - -	C Sel-D Sel-Inch Shop	Frames, Special Window - -	C Sel-D Sel-1&2 Shop-2 Com
Blinds, Venetian - - - -	C Sel-D Sel-Inch Shop	Furniture, Clear - - - -	B&Btr-C-D Sel-Shop
Boxes, Flower - - - -	B&Btr-C&D Sel-Inch Shop-1&2 Shop	Furniture, Knotty - - - -	1 Com-2 Com
Built-in Conveniences - - -	B&Btr-C Sel-D Sel-2 Com-Inch Shop-1&2 Shop	Ironing Boards - - - -	B&Btr Sel-C Sel-D Sel-Shop
Cabinets, Kitchen and Medicine - - - -	C Sel-D Sel-1&2 Shop-Inch Shop	Jambs, Door - - - -	1 Shop-2 Shop
Cabinets, Radio and Phonograph - - - -	C&D Sel-1&2 Shop-1&2 Com	Mantels - - - -	C Sel-D Sel-Inch Shop
Cases, Book - - - -	B&Btr-C&D Sel-2 Com-Inch Shop	Mouldings - - - -	C Sel-D Sel-Moulding Lumber
Cases, Linen - - - -	C Sel-D Sel-Inch Shop	Newel Posts - - - -	C Sel-D Sel
Closets, China- - - -	C&D Sel-Inch Shop-1&2 Shop	Paneling, Clear - - - -	B&Btr-C Sel-D Sel
Columns, Porch - - - -	C Sel-D Sel	Paneling, Knotty - - - -	1 Com-2 Com
Cupboards - - - -	C Sel-D Sel-1&2 Shop-Inch Shop	Pergolas - - - -	B&Btr-C Sel-D Sel-Inch Shop-1&2 Shop
Counter Tops - - - -	B&Btr-C-D Select	Pews - - - -	C Select
Doors, Exterior - - - -	C&D Sel-1&2 Shop	Pickets, Fence- - - -	C Sel-D Sel-2 Com
Doors, Garage- - - -	Selects-Shop, 2 Common	Rose Arbors - - - -	B&Btr Sel-C Sel-D Sel-Mouldings
Doors, Interior - - - -	C&D Select-1&2 Shop	Sash, Green House - - - -	2 Shop-3 Shop
Doors, Knotty - - - -	1 Com-2 Com	Sash, Screen - - - -	C Sel-D Sel-1&2 Shop
Doors, Screen - - - -	C Sel-D Sel-1&2 Shop	Sash, Special Window - - -	C Sel-D Sel-3 Shop
Dressers and Wardrobes - -	C Sel-D Sel-Inch Shop	Seats, Lawn - - - -	B&Btr Sel-C Sel-D Sel
Drawer Bottoms - - - -	C Sel-D Sel	Swings, Porch and Lawn - -	C Sel-D Sel-2 Com
Fixtures, Bank - - - -	1 Shop&Btr-2 Shop-Inch Shop	Stair Work - - - -	C Sel-D Sel
Fixtures, Store - - - -	B&Btr Sel-C Sel-D Sel-Inch Shop-1&2 Shop	Store Fronts - - - -	C Sel-D Sel
		Store Fronts, Covered - - -	D Sel-2 Com
		Table Legs - - - -	B&Btr Sel-C Sel
		Table Tops - - - -	B&Btr Sel-C Sel-D Sel
		Trellises - - - -	B&Btr Sel-C Sel-D Sel-Mouldings
		Trim - - - -	B&Btr Sel-C Sel-D Sel

(Stock Sash, Door and Millwork Factories)

Blinds, Exterior - - - -	C Sel-D Sel-Inch Shop	Mouldings - - - -	Short Sel-Shop-Moulding Lumber
Blinds, Venetian - - - -	C Sel-D Sel-Inch Shop	Panels, Door - - - -	1 Shop&Btr
Cases, Book - - - -	B&Btr Sel-C Sel-D Sel-2 Com-Inch Shop	Pergolas - - - -	B&Btr Sel-C Sel-D Sel-Inch & 1&2 Shop
Casings - - - -	Inch Shop-Short Sel-2&3 Shop	Pickets, Fence- - - -	C Sel-D Sel-2 Com
Columns, Turned - - - -	1 Shop&Btr-Selects	Rose Arbors - - - -	B&Btr Sel-C Sel-D Sel-Mouldings
Doors:		Sash - - - -	3 Shop
Muntins - - - -	1 Shop-2 Shop-3 Shop	Sash, Screen - - - -	3 Shop-Inch Shop
Rails, Lock - - - -	1 Shop-2 Shop-3 Shop	Sash, Storm - - - -	3 Shop-Inch Shop
Rails, Top - - - -	2 Shop-3 Shop	Seats, Lawn - - - -	B&Btr Sel-C Sel-D Sel
Stiles - - - -	1 Shop-2 Shop	Shutters - - - -	Short Selects-Shop
Doors, Screen - - - -	Short Selects-Shop-2 Com	Sills, Door - - - -	2 Shop-3 Shop
Doors, Storm - - - -	Short Selects-Shop-2 Com	Sills, Window - - - -	3 Shop
Door Frames - - - -	Short Selects-Shop	Table Legs - - - -	B&Btr Sel-C Sel
Furniture, Clear - - - -	B&Btr-C-D Sel-Shop	Table Tops - - - -	B&Btr Sel-C Sel-D Sel
Furniture, Knotty - - - -	1 Com-2 Com	Trellises - - - -	B&Btr Sel-C Sel-D Sel-Mouldings
Ironing Boards - - - -	B&Btr Sel-C Sel-D Sel-Shop	Window Frames - - - -	Short Selects-Shop-2 Com
Jambs, Door - - - -	1 Shop-2 Shop		

RECOMMENDED GRADES OF PONDEROSA PINE

Industrial Uses

Airplane Hangar Roof Sheathing	- - - - -	3 Com-4 Com
Airplane Hangar Siding	- -	D Sel-2 Com-C&D Bevel Siding
Airplane Hangar Sliding Doors		Selects-2 Com-3 Com
Auto Floor Boards	- - - -	2 Com-3 Com
Backing, Furniture, Mirrors, etc.	- - - - -	3 Com-4 Com
Billboards	- - - - -	C&D Sel-2 Com
Boxes, Shipping	- - - -	3 Com-4 Com
Caskets	- - - - -	1 Com-2 Com-3 Com
Concrete Forms	- - - -	2 Com-3 Com-4 Com
Counter Tops	- - - - -	B&Btr-C Sel-D Sel
Crates, Shipping	- - - -	3 Com-4 Com
Doors, metal clad	- - - -	2 Com-3 Com
Enclosures, Temporary	- -	3 Com-4 Com
Flasks, Foundry	- - - -	2 Com-3 Com
Flumes	- - - - -	2 Com
Gaskets, Large Pipe Lines	-	B&Btr Sel-C Sel
Mattress Lumber, River Work		2 Com-3 Com-4 Com

Partitions -	-	-	-	-	-	-	C Sel-1 Com-2 Com
Pattern Lumber	-	-	-	-	-	-	B&Btr Sel-C Sel-D Sel- 2 Shop&Btr-2 Com
Reels, Cable	-	-	-	-	-	-	2 Common
Sheds-	-	-	-	-	-	-	2 Com-3 Com-4 Com
Shelving, Store	-	-	-	-	-	-	C&D Sel-1&2 Com
Shelving, Warehouse	-	-	-	-	-	-	2 Com-3 Com
Shelving, Rough	-	-	-	-	-	-	2 Com-3 Com
Shelving, Glued Hardwood Edge	-	-	-	-	-	-	D Sel-1&2 Com
Sidewalks, Temporary-	-	-	-	-	-	-	2 Com-3 Com
Sign Boards, Small	-	-	-	-	-	-	2 Com-3 Com
Spouts, Flour Mill	-	-	-	-	-	-	B&Btr Sel-C Sel
Seats, Stadium	-	-	-	-	-	-	2 Common
Tanks-	-	-	-	-	-	-	B&Btr Sel-C Sel-1 Com- 2 Com
Templates	-	-	-	-	-	-	B&Btr Sel-C Sel-D Sel-1&2 Shop
Theatre Scenery Strips	-	-	-	-	-	-	B&Btr-C-D Sel
Theatre Staging	-	-	-	-	-	-	1 Com-2 Com

Railroad Uses

Box Car Running Boards-	-	-	-	-	C Sel-2 Com
Box Car Siding	-	-	-	-	- C Select
Cable Boxes	-	-	-	-	- 2 Common
Coal Doors-	-	-	-	-	- 4 Com-5 Com
Gates-	-	-	-	-	- 2 Com-3 Com
Grain Doors	-	-	-	-	- 4 Com-5 Com
Refrigerator Car Running Boards-	-	-	-	-	C Sel-2 Com
Refrigerator Car Siding	-	-	-	-	C Select
Shelving-	-	-	-	-	- 2 Com-3 Com

Sign Boards	- - - - -	-	2 Common
Small Buildings, Sheathing and Drop Siding-	- - - - -	-	2 Com-3 Com
Snow Fencing Boards	- - - - -		3 Common
Snow Fencing (Wire Fastened)-		-	1 Snow Fence Lath
Stations and Freight House	- -		See Construction Uses
Ties	- - - - -	- - - - -	R. R. Specifications
Watchmen's Shelters	- - - - -		2 Common

RECOMMENDED GRADES OF PONDEROSA PINE

Farm Uses

Boards and Battens- - - -	2 Com-3 Com	Grooved Roofing- - - -	2 Com-3 Com
Brooders and Incubators - -	Short Selects-Inch Shop- 2 Com	Hay Rack Boards - - - -	1 Com-2 Com-3 Com
Chicken Houses - - - -	2 Com-3 Com	Hog Houses - - - -	2 Com-3 Com
Chicken Feeders - - - -	2 Com-3 Com	Hot Beds - - - -	3 Common
Corn Cribbing- - - -	2 Com-3 Com	Partitions, Stall - - - -	2 Com-3 Com
Cornices, Barn - - - -	D Sel-2 Com-3 Com	Racks, Feeding - - - -	2 Com-3 Com
Cupolas - - - -	D Sel-2 Com	Residences - - - -	See Construction Uses
Dryers, Fruit - - - -	2 Com-3 Com	Roofs, Haystacks and Tem- porary Corn Cribs - - - -	3 Common
Drying Trays, Fruit - - -	2 Common	Seed Bed Boards- - - -	2 Common
Fox Pens - - - -	2 Com-3 Com	Sheds- - - -	2 Com-3 Com-4 Com
Floors, Corn Crib - - - -	3 Common	Siding, Barn - - - -	2 Com-3 Com
Floors, Hayloft - - - -	2 Com-3 Com	Siding, Bevel - - - -	B&Btr Sdg-C Sdg-D Sdg
Garages - - - -	See Construction Uses	Siding, Drop - - - -	C&D Sel-1,2&3 Com
Gates and Fences - - - -	2 Com-3 Com	Troughs, Hog Feeding- - -	2 Com-3 Com
Gateways - - - -	C Sel-D Sel-2 Com	Troughs, Watering - - - -	1 Com-2 Com
Grain Chutes - - - -	2 Common	Wagon Boxes - - - -	C Sel-D Sel-1 Com-2 Com
Granaries - - - -	2 Com-3 Com	Wayside Market Buildings -	3 Common
Green Houses - - - -	3 Common	Well Curbing - - - -	2 Com-3 Com
Green House Plant Frames -	2 Common		

Miscellaneous Uses

Agricultural Implements - -	B&Btr Sel-C Sel-1 Shop	Pergolas - - - -	B&Btr Sel-C&D Sel-Inch & 1&2 Shop
Bee Hives - - - -	Inch Shop	Piano Keys- - - -	Shop-Short Sel
Billboard Framing - - - -	1 Dim-2 Dim	Pickets, Fence- - - -	C Sel-D Sel-2 Com
Billboard Mouldings - - -	C Sel-D Sel-1 Com-2 Com	Picture Frames - - - -	C&D Sel-Mouldings
Blackboards - - - -	B&Btr Sel-C Sel	Picture Backing - - - -	3 Com-4 Com
Boats- - - -	B&Btr Sel-C Sel	Rabbit Hutches - - - -	3 Common
Book Cases- - - -	B&Btr Sel-C&D Sel-2 Com- Inch Shop	Refrigerator Backing - - -	2 Com-3 Com
Boxes- - - -	3 Com-4 Com	Rollers, Awning - - - -	Selects
Card Tables - - - -	C Sel-D Sel-Inch Shop-1&2 Shop	Rollers, Map - - - -	Special
Crates - - - -	3 Com-4 Com	Rollers, Window Shade - - -	Special
Dairy and Poultry Supplies -	C Sel-D Sel-1&2 Com	Rug Poles - - - -	Selects
Display Platforms - - - -	2 Com-3 Com	School Desk Tops - - - -	Short Selects
Drain Boards - - - -	Shop-Short Selects	School Industrial Arts Lumber	B&Btr Sel-C&D Sel-1,2&3 Com-Inch Shop-1,2&3 Shop
Drawing Boards - - - -	B&Btr Sel-C Sel	Seats, Chair - - - -	D Sel-Inch Shop-1&2 Shop
Drawer Bottoms - - - -	C Sel-D Sel	Seats, Grandstand - - - -	2 Common
Electrical Equipment - - -	C Sel-2 Com	Seats, Lawn - - - -	B&Btr Sel-C Sel-D Sel
Flower Boxes - - - -	B&Btr Sel-C&D Sel-Inch & 1&2 Shop	Silk Reels - - - -	Short Selects-Inch Shop
Foundry Patterns - - - -	B&Btr Sel-C Sel-D Sel-2 Com	Slats, Window Shade - - - -	Special
Fruit Boxes- - - -	3 Com-4 Com	Sporting and Athletic Equip- ment - - - -	C&D Sel-1&2 Com
Furniture, Clear - - - -	B&Btr Sel-C Sel-D Sel	Store Fronts - - - -	C Sel-D Sel
Furniture, Knotty - - - -	1 Com-2 Com	Store Fronts, Covered - - -	D Sel-2 Com
Honey Comb Slats - - - -	Inch Shop	Swings, Porch and Lawn - -	C Sel-D Sel-2 Com
Instruments, Scientific- - -	C&D Sel-1&2 Com	Table Legs - - - -	B&Btr Sel-C Sel
Ironing Boards - - - -	B&Btr Sel-C Sel-D Sel-Shop	Table Tops- - - -	B&Btr Sel-C Sel-D Sel
Ladders - - - -	B&Btr Sel-C Sel	Toys - - - -	Selects-Short Sel-Shop
Laundry Appliances - - - -	C&D Sel-1&2 Com	Trellises - - - -	B&Btr Sel-C Sel-D Sel- Mouldings
Novelties - - - -	B&Btr Sel-C&D Sel-Inch & 1&2 Shop	Trunks and Valises - - - -	C Sel-2 Com
Organ Pipes - - - -	B&Btr Sel-C Sel-Inch Shop	Water Tanks - - - -	1 Com-2 Com
Pastry Boards- - - -	Short Sel-Inch Shop	Wash Boards - - - -	Short Sel-Inch Shop
		Woodenware and Novelties -	C Sel-1&2 Com



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